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ABSTRACT

The Presidential Task Force on Career Advancement reviewed post-entry training for Federal employees in professional, administrative and technical occupations. Training was found to be good; but in this report needed improvements are deliberately highlighted. The Task Force found that all of its recommendations can be carried out under the Government Employees Training Act of 1958. Some agency training does not provide knowledge or develop skills needed by management before they are advanced to higher levels; and training is less available in the field than in Washington. Agencies differ widely in the extent and quality of training for specialists. Of the 57 agencies providing the Task Force data, 56 sent employees to interagency training programs; over half of this training was provided for management--professionals had little coverage and technicians but 17% of courses. Agencies lack clear policies on when employees might appropriately be enrolled in universities. The Civil Service Commission, in a new role, should provide agencies with information, advice, and counsel on training problems in a number of fields. Training and education are capital investments which eventually contribute to the Nation's gross national product. The absence of developmental programs with the resultant loss of peak performance can cost more than training. (NL)

Investment for Tomorrow

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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A REPORT OF THE

PRESIDENTIAL

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PRESIDENTIAL TASK FORCE ON CAREER ADVANCEMENT
WASHINGTON, D.C.

DEAR MR. PRESIDENT:

When you appointed the Presidential Task Force on Career Advancement, you asked us to make recommendations on post-entry training and education for the 760,000 Federal professional, administrative and technical employees. Our study shows that action is indeed needed. Changes in technology, organizations, and programs will require present employees to learn new skills and knowledges. Changes in personnel will create another training need. About 67,500 will be hired each year as replacements for those who are leaving Government and an additional 22,500 may be hired to staff new programs.

With help from officials in industry, in the universities, in our own and other Governments, we have examined the most pressing employee development problems and explored the best known ways of dealing with them. Our Report, enclosed, records both our findings and our recommendations for improving training and education for professional, administrative and technical employees in order to give the public the best possible service.

Respectfully yours,



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Chapter One

Summary and Recommendations

This is an age of change and Government's professional, administrative, and technical employees are major agents of this change, not only in our country but around the world. They search out problems, probe for answers, recommend solutions, and act—act to rehabilitate cities, provide medical and financial support for the aged, reduce air and water pollution, investigate discrimination in employment and deprivation of the right to vote, bring public offenders to justice, protect the small investor, and perform a thousand other public services.

The President asked the Task Force to review critically the post-entry training and educational programs for Federal employees in professional, administrative and technical occupations. He charged the members with responsibility for recommending action that would exploit to the maximum the best methods for learning and for renewal in a time of changing technology.

In this chapter, the Task Force presents key findings and recommendations. Federal agencies have much to be proud of. Their training for professional, administrative and technical occupations is good. However, deliberately highlighted here are needed improvements. This will sound critical. That is the job of a Task Force—to analyze, to find how to make good programs better, weak ones stronger. Its goal is to point the way by which Federal training and education can become not just good but excellent.

The recommendations are presented in this chapter in this order:

- A. Government-wide Policy
- B. Programs for Managers
- C. Programs for Specialists
- D. Interagency Training
- E. Education

- F. Civil Service Commission
- G. Agency Operations

(Note: the numeral following a recommendation refers to the chapter in this Report in which it is discussed.)

A. GOVERNMENT-WIDE POLICY

The Government Employees Training Act of 1958 provides the means for keeping these key employees "well abreast of scientific, professional, technical, and management developments both in and out of Government." The Act was implemented in 1959 by Executive Order 10800. The Task Force consulted with agency officials on these and on the Civil Service Commission's regulations and instructions.

Legislation

Agency and Commission officials report that the Government Employees Training Act as amended permits the President and agency heads to establish needed training and education programs. The Task Force found that all of its recommendations can be carried out under this Act.

Finding

- The Task Force has no recommendation to make on new legislation for training and education for professional, administrative and technical employees (10).

Presidential Policy

Executive Order 10800 was issued in January 1959 before agencies had experience in using their new authority. A new directive is needed which

will reflect this experience and the best practices in industry.

Recommendation

To update Government-wide policies on training and education, the Task Force recommends that the President:

- Issue an Executive Order which establishes basic policy for improvement of the public service through maximum exploitation of better training and education, taking into account productive new practices in industry and Government (11).

Staff Assistance for the President

The President should have staff assistance so that he may be advised on progress in improving training and educational programs. The Civil Service Commission is the logical agency to provide this service to him.

Recommendation

The Task Force recommends that the President:

- Direct the Civil Service Commission to plan and promote the development, improvement, coordination and evaluation of Federal civilian employee training programs (10).

Executive Development

As the Task Force looked at the Federal service Government-wide, it seemed clear that the President and the heads of agencies need career executives who can be free from the provincialisms of occupation and specialization as they advise on and direct Federal programs. An agency head needs career executives who can alert him to new and impending problems, direct teams of experts, integrate them into productive performance, deal with clientele groups effectively, and put new programs into operation. This requires skills and knowledge which take years to develop. The Task Force finds that few agencies plan and carry out sound executive development programs. This is a serious deficiency.

The President in Executive Order 11315, issued November 1966, created an Executive Assignment System which calls for periodic review of plans for staffing upper-level positions, provision of a broader base for search for career executives in Government and out, increased utilization of executive

talent, and increased recognition and opportunity for personal development. He directed the Civil Service Commission to recommend a program for the training and development of career executives. The Task Force wholeheartedly supports this order as it provides an affirmative framework for executive development and facilitates the implementation of its recommendations.

Recommendations

To take full advantage of the new Executive Assignment System, the Task Force recommends that the President direct the Civil Service Commission in consultation with agencies to:

- Identify for developmental purposes the knowledge and skills needed by career executives to improve performance (5);
- Establish a program of intensive, full-time residential training for career executives which will:
 - (1) Enable them better to supply continuity and responsiveness in Government operations,
 - (2) Provide them with concepts and knowledge that they can use toward further self development, and
 - (3) Enable them to render more valuable service to the agency heads, the President and the public (5);
- Open assignments to career executives, short and long term, in Government agencies other than their own or to training assignments outside Government which provide experiences that will supplement agency efforts to develop broad viewpoints (5).

The Task Force also recommends that the President direct the heads of agencies to:

- Take steps which will develop in career executives broad viewpoints as free as possible from the provincialism of occupation and specialization (5);
- Support the full-time residential training for career executives when it is established by the Commission (5);
- Develop programs of training and education for outstanding specialist managers which will broaden their knowledge, sharpen their skills and improve their potential for advancement to executive posts (5);
- Designate a high-ranking official to activate an executive development program and provide resources to implement it (5).

Implementation of This Report

This Report deals with 760,000 professional, administrative, and technical Government employees. To get its recommendations for these groups implemented, the Task Force recommends that the President ask agency heads to:

- Review the Task Force report and periodically provide the Civil Service Commission statements on their progress in implementing it (11).

The Task Force further recommends that the President ask the Civil Service Commission to:

- Provide agencies advice on implementing this Report both in writing and through consultations (11);
- Analyze agency statements on its implementation and advise the President on progress being made (11).

Because these recommendations may not always fit the needs of other groups as well as those of professional, administrative and technical employees, the Task Force recommends that the President direct the Civil Service Commission to:

- Coordinate and initiate with agency cooperation studies of training and education needed for major educational groups not covered in this Report (11).

B. PROGRAMS FOR MANAGERS

The Task Force found that most Federal managers and supervisors move into their jobs with excellent knowledge of a specialty but less-than-desirable knowledge and skill in their leadership roles. Although management is an art, talent in this field can be developed through on-the-job counseling and formal training.

Studies by the Task Force show that some agency training does not regularly provide the knowledge or develop the skills needed by those moving through the management hierarchy before they are advanced to higher levels. They show that the training of supervisors and managers is sometimes blurred together, instead of being aimed specifically at the very different needs of each. They show that while training is often readily available in Washington, it is less so in the field.

Recommendations

The Task Force recommends that the President:

- Direct agency heads to develop programs which

will encourage people of outstanding potential to prepare themselves in early stages of their careers for possible advancement to top-career levels and to supplement self development with appropriate training and education (5).

The Task Force further recommends that agency heads:

- Give employees with potential preparatory assignments, experiences and training before they are placed in leadership posts (5);
- See to it that those selected to become managers and executives possess knowledge, abilities and skills required to integrate their organizations into the agency and Government, to direct and carry out assigned missions, and to maintain sustained high quality and efficient performance (5);
- Place on executives the responsibility for the training and education of managers, and that a system be established for monitoring the effectiveness with which this is done on the job and in formal courses (5);
- Create effective programs which enlarge each manager's depth of understanding of the professional, scientific or technical fields under his supervision (5);
- Increase each manager's skill in the techniques of management and the processes of administration; extend his effectiveness in dealing with Federal employee organizations under Executive Order 10988; develop his capacity for efficient use of resources; broaden his understanding of agency and Government missions; and sharpen his ability to relate his assignment to national goals (5);
- Make certain that managers provide much more on-the-job training and guidance of supervisors than they now do (5).

C. PROGRAMS FOR SPECIALISTS

Government will recruit about 90,000 professional, administrative, and technical employees annually for the next 10 years to replace those who leave and to staff new positions. The training of these newcomers will be complicated by rapid changes in methods, technology, occupational

requirements and Government programs.

The Task Force finds that agencies differ widely in the extent and quality of their training for specialists. Those that have career systems find them to be especially valuable for professional, scientific, and administrative employees. They provide more orderly establishment of standards for advancement, more purposeful competition for promotions, and more timely and useful training and education. Career systems are discussed more fully under section G of this chapter, "Agency Operations."

Agencies would benefit if they made greater use of master professionals for the training of less experienced employees. On the other hand, better planning and clearer goals should be established for the training of the masters. Additional in-service training for them is needed.

Administrative-technical employees, usually college graduates but not serving in professional positions, have parallel needs.

Recommendations

The Task Force recommends that the heads of agencies:

- Create conditions for professional, scientific and administrative employees where the need for self development is apparent, personal efforts are rewarded, study materials are readily accessible, and opportunities to use new knowledge, concepts and skills are made available (2, 6);
- Review their orientation programs for professionals, scientists and administrative-technical employees to:
 - (1) Set clear goals,
 - (2) Identify and assign newcomers for orientation to supervisor-manager teams with outstanding training capacities, and
 - (3) Reorganize formal programs so that they will supplement on-the-job training and communicate occupational and Government standards and values (6);
- Establish systems for a continuing review of specialist training needs and for job rotation and in-service courses to meet most of these needs (6);
- Review their present in-service training for professionals, scientists, and administrative-technical employees to make sure that the more

experienced and the most able are assigned to give needed training to others (6);

- Provide standards for advancement to important career stages and establish review systems which advance only professionals of excellence (6);
- Establish a sound system for selecting the best of experienced professional, scientific and administrative employees for assignment to full-time and residential training which will supplement their self development; for setting objectives for such training; for maintaining relationships with the trainee while away from the job; for orienting the trainee back to work, preferably in some new assignment; and for evaluating agency experience with such training (6);
- Create systems which will identify marginal producers among their professional, scientific and administrative-technical employees and provide them counseling, training, education, or reassignments (6).

Technicians

The Task Force, looking at post-entry training, could not ignore the shortage of trained technicians. Those coming from various technical training institutions will hardly meet half the demand in Government, industry and research organizations. This means that the technical training will have to occur on two levels: (1) For those with formal training and (2) for those with unspecialized education.

Recommendations

The Task Force recommends that the heads of agencies:

- Review their recruiting and training programs for technicians, plan what training is needed for the kinds of recruits they are likely to obtain and at what levels, and then make sure that needed training is provided at the time it is needed (6);
- Establish systems whereby:
 - (1) The opportunities for upgrading to technician jobs are effectively communicated to employees and to employee organizations,
 - (2) Those who express interest are ranked as to their potential for such assignments, and
 - (3) The best of these are trained for the jobs (6);

- Make manpower studies to determine how much routine professional work can be transferred to technicians, how many less professionals and how many more technicians this would require, and to make 5-year projections of both the need for technicians and the probable supply (6).

The Task Force was informed that technical training institutions need more faculty and equipment.

Recommendation

The Task Force recommends that the Commissioner of Education:

- Look into technician training and take steps to:
 - (1) Improve the quality of pre-entry training of technicians,
 - (2) Provide more adequate facilities and equipment in technical training institutions, and
 - (3) Attract greater numbers of trainees to areas of greatest technician shortages (6).

Attorneys and Economists

The Task Force looked specially at attorney and economist training and education as examples of the problems to be faced in career development for professional employees. It has recommendations for these groups and it is likely that similar recommendations could be made for others.

Recommendation

The Task Force recommends that officials in charge of programs employing attorneys and economists:

- Seek advice and assistance from professional societies, university scholars, personnel officers, and the Civil Service Commission in establishing agency programs of career advancement, training and education for attorneys and economists (6).

D. INTERAGENCY TRAINING

Of the 57 agencies providing the Task Force data, 56 of them sent employees to interagency training programs. This form of sharing of training by one agency with another was created by the Government Employees Training Act. In fiscal year 1966, 65,000 employees participated in these courses. However, 94 percent of the training was provided by 6 agencies.

Over half of the interagency training was provided for management. Professionals had little coverage and technicians but 17 percent of the courses.

The Task Force ascertained that interagency training has many advantages, including lower cost, better quality and a reduction in duplication of training effort.

Recommendations

The Task Force liked what it saw of interagency training and recommends that the President:

- Provide that agencies shall share their training facilities and cooperate in interagency training whenever this will result in savings for Government or produce better service to the public (7).

The Task Force recommends that heads of agencies:

- Open their training programs to employees from other agencies (7);
- Cooperate with each other and with the Civil Service Commission in continuing and expanding interagency programs (7);
- Establish a policy which calls for reimbursement for their training services to other agencies (7).

The Task Force would like the Civil Service Commission to take leadership in extending and improving interagency training. It therefore recommends that the Commission:

- Identify major functional areas in which new or additional interagency training is needed (7);
- Negotiate with the agency having prime responsibility for a function either to provide that training or to provide advice on course content (7);
- Take steps to have such courses set up and conducted as often as needed and in convenient locations in Washington, the field and overseas (7);
- Explore with appropriate agencies means by which interagency training can be established and offered such professionals as economists and attorneys (6);
- Assist agencies to provide conveniently located interagency training in the field and overseas, and coordinate the scheduling of courses, as needed (7);
- Inventory agency training centers and make their programs known to all agencies (7).

E. EDUCATION

The Task Force received projections that the number of bachelor's degrees in the natural sciences, social sciences, humanities and, related professions will increase by 68 percent in the coming 10 years. Moreover, the number of master's degrees will go up 83 percent and doctorates 94 percent. It is easy to deduce that universities will continue to be under heavy pressures.

The Task Force found that agencies lack clear policies on when employees might appropriately be enrolled in universities. It concludes that universities should be used primarily for basic education and knowledge of academic disciplines, for preparation for professional careers, for broad learning about our society, and for horizon-stretching for selected, experienced career officers. It also concluded that Government may be best suited to provide training and education (1) in specializations dealing with specific applications of theory to Government programs; (2) in techniques closely related to work performance; (3) on agency and Federal policies, programs and procedures; and (4) in frontier areas such as space technology, where the agency's program is a prime source of advanced, specialized knowledge.

Recommendations

The Task Force recommends that the President:

- Enunciate a policy that agencies shall use Federal facilities for training whenever this will result in savings for Government or produce better results at lower costs (8).

The Task Force also recommends that the President direct agency heads to:

- Analyze and clarify policies for support of employee training and education:
 - (1) To distinguish more clearly between education and training which should be Government conducted and that which should be provided in universities, and
 - (2) To make certain that such training and education supports agency mission and its management needs (8);
- Establish a policy which makes clear:
 - (1) That except in special cases (see chapter 8), employees are to obtain undergraduate education at their own expense or through scholarships and loans, and

(2) The limited circumstances in which employees may be supported at agency expense in undergraduate courses (8);

- Establish policies on graduate education which make clear:

(1) To professional and administrative employees the vital necessity of graduate education,

(2) To managers and executives the importance of budgeting for reasonable and adequate support of graduate education, and

(3) To both groups that graduate education is to be awarded competitively within budgeted funds in order of its potential contribution to agency mission (8);

- Make clear that graduate courses should be granted competitively to employees who:

(1) Need education related to present or future job performances (and not solely to get a degree),

(2) Are specialists needing broadening for future work assignments (8);

- Direct executives to stretch the funds available for graduate education to reach as many professional and administrative employees as possible through having employees share its costs (8);
- Seek to attack the causes of shortages when professional, administrative, and technical recruits are in short supply, and limit the use of educational courses as a recruiting incentive except where needed to compete (8);
- Provide more training and education in agency facilities to update both specialists and specialist-leaders (8).

The Task Force learned that legislation is under consideration which would forgive half of a National Defense Education Act loan for collegiate study if the student entered State or local government.

The Task Force recommends that the Secretary of Health, Education, and Welfare:

- Make sure that if educational loans are to be forgiven in whole or part for those who enter the public service that such action apply to those who enter the Federal service (8).

Mid-Career University Education

The Task Force realizes that universities face heavy demands on their facilities. However, Gov-

ernment and industry have a common need: To update professional, administrative, and technical employees during their working lives. Most university courses, as now offered, are aimed at inexperienced rather than mature persons.

Recommendation

The Task Force recommends that:

- Universities create new types of academic programs for the midcareer updating of Federal employees in professional, scientific, and administrative fields (8).

F. CIVIL SERVICE COMMISSION

The Task Force finds that while the Civil Service Commission's fine interagency training program has grown apace, its other services have remained inadequate. The time has come to redress the balance. The Commission should be better equipped to provide the President and agency heads advice and counsel on training and education.

The Commission's interagency training has been able to keep pace with changing demand because it is funded by charges made to agencies. The more the demand, the greater the response. The leadership functions are funded by direct appropriations to the Commission which have remained at almost the same level for five years. A lot has happened in that time and a new role is indicated.

Recommendations

The Task Force recommends that the Civil Service Commission seek and that the President and the Congress provide:

- (1) Resources for staff assistance to the President on training and education, and
- (2) Resources for Government-wide coordination, information analysis, advice, assistance and leadership in the field of career systems, training and education (11).

The Task Force recommends that the Civil Service Commission:

- Counsel heads of agencies and top-level executives as needed to improve development, training, and education for administration (5).

The Civil Service Commission and the Bureau of the Budget should jointly move agencies toward better budgeting practices in the training field. The Commission should train line officials and employee

development officers in how to make the analyses and presentations needed.

The Task Force recommends that the Bureau of the Budget and the Civil Service Commission:

- Work closely together in assisting agencies to relate their training and education programs to the planning-programming-budgeting system (9);
- Assist agencies to develop sound program and financial plans for their training and education (9).

In addition, the Task Force recommends that the Civil Service Commission:

- Continue to give advice, assistance, and information to agencies on their manpower planning (9).

The Commission in a new role should provide agencies information, advice and counsel on their training problems in a number of fields. The Task Force, therefore, recommends that the Civil Service Commission:

- Provide technical assistance to agencies on developing supervisors, managers, and executives on the job and off (5);
- Provide technical assistance to agencies in improving their training and educational programs and systems for career advancement (3);
- Report to the President on the success with which agencies maintain career advancement systems (5);
- Conduct research and development on the evaluation of training and education and advise agencies on evaluation methodology (9).

The Commission now inspects agency training. The Task Force did not review this process, but has three recommendations:

- Check on how agencies relate their manpower planning to training and education programs (9);
- Pay special attention to the training and educational opportunities available to professional, administrative, and technical employees in small field units (9);
- Improve its evaluations of agency training plans and programs (9).

Handicapped in its studies by the lack of information, especially solid statistics, about training and education, the Task Force recommends that the Civil Service Commission:

- With agency cooperation design a new reporting system for training and education in the Federal service (9).

The Training Act requires employees to remain in Government service for a period of time after training in non-Governmental institutions, or to pay back certain costs, other than salary. Two of the present requirements seem too stringent—the recapture of money from the estates of deceased employees and the potential recapture from an employee who moves from one agency to another.

The Task Force recommends that the Civil Service Commission:

- Reduce the stringency of requirements for obligated service for:
 - (1) Employees who move from one Federal agency to another, and
 - (2) Estates of deceased employees (8).

G. AGENCY OPERATIONS

The Government Employees Training Act directs the heads of agencies to "prepare, establish and place in effect a program * * * and a plan thereunder * * * for the training of employees." This makes agency heads responsible for the development of their employees. The Task Force, therefore, has directed a number of its recommendations to these officials.

The Task Force finds that training and education are capital investments, shared by employee and management, which contribute significantly to improved quality and greater quantity of work produced, and eventually, to growth in the Nation's gross national product. Government must invest wisely in training and education, but it must provide adequate funds and reasonable periods of time away from the job if it is to get the best returns. The Task Force concludes that the absence of developmental programs with the resultant loss of peak performance can cost more than training.

Self Development

While the Task Force found Federal agencies generally quite effective in formal training, such as that given in classrooms, it observed that most agencies lack systems to monitor the effectiveness with which supervisors and managers develop a work environment that stimulates employees to self development. Training is a necessity in this age for our professional, administrative and technical employees, and Government cannot afford to neglect on-the-job

development which is indispensable and often the best kind of training.

Management support for self development is best when it is systematically planned. For example, individuals should be analyzed as to their strengths and weaknesses. Groups or occupations should be studied to determine what self-instruction materials are available and what are needed. Professional associations and employee organizations should be asked to contribute their views on self training and to give their support to it.

Recommendations

The Task Force, therefore, recommends that agency heads:

- Insure that managers and supervisors in their day-to-day work relationships enable employees to realize that their own immediate and long-range goals can be compatibly integrated with agency operational objectives and with long-range Government goals (2);
- Take advantage of the variety of work and the flexibility of assignment to provide work experiences which will promote growth, stimulate self development, and bring about improved public service (2);
- Establish systems for monitoring and evaluating on-the-job training (3);
- Adjust their personnel systems and build traditions which support employee self development (9).

Career Systems

Money spent on training and time allowed for it will be much better invested by both management and employees if training is planned, coordinated, and directed wisely. The Task Force came to the conclusion that agencies which have career systems attract better quality recruits, and put them into production more quickly. By providing professional, administrative and technical employees superior preparation for advancement, agencies with career systems get higher quality and greater quantity of work, and more readily hold on to their skilled people. Training and education are important factors in such career systems.

Recommendations

The Task Force recommends that agency heads who do not now have career systems for their professional, administrative and technical employees should:

- Direct the establishment of and guide the operation of career systems for the advancement, training, and education of professional, administrative, and technical employees (3, 9).

To improve training for professional, administrative and technical employees, whether or not they are in full-fledged career systems, the Task Force recommends that agency heads:

- Review their orientation programs to make certain that they motivate professional, administrative and technical employees to early habits of self-development and foster attitudes appropriate to those in public service (3);
- Make sure that supervisors and managers understand how to motivate individual learning (3);
- Review and improve practices used by managers and supervisors for on-the-job training and development (3);
- Provide specifically in performance appraisal systems for review and feedback to supervisors and managers on their staff development activities (3, 9).

Plans and Programs

The Task Force reviewed the pattern of grants of training authority to subordinate units of agencies. Agency heads acted cautiously in the early days following the passage of the Training Act, and some have not updated their issuances in the light of current experience. The Report in chapter ten suggests a policy for a system of delegations.

One of the common informal statements made to Task Force members was that training programs too often lack essential resources—money, men, materials, and space. The Task Force is of the opinion that sound planning, programming and budgeting of training would do much to correct the situation. This Report, therefore, goes into manpower planning, cost-benefit analysis, program choices, and evaluation—matters which are not too often well handled when training seeks allotments.

Recommendations

The Task Force recommends that agency heads:

- Review their delegations for training and education of professional, administrative, and technical employees and revise them to provide:
 - (1) Stimulus to active, continuing training and education,

(2) Authority for management to take and get prompt action in accordance with Government and agency policies and procedures, and

- (3) Evaluations and controls which flag needed changes or remedial actions (10);
- Support the Civil Service Commission's MUST program by opening more training opportunities to employees who have been disadvantaged economically and educationally (3);
- Make sure that career advancement, training, and educational opportunities are equitably open to qualified employees regardless of race, creed, color, nationality, or sex (3);
- Provide systems which will anticipate technological changes and plan for needed new or revised training and education (4);
- Direct appropriate subordinates to project their needs for professional, administrative and technical employees and use these manpower projections in planning training and educational programs (9);
- Provide in their budgets both funds and man-years available for training and education (9);
- Make clear to their career and noncareer executives the importance of including programs for training and education in the planning-programming-budgeting system proposals which are presented to them for approval (9);
- Take steps to improve the programming of training and education, the study of its cost benefits, and the evaluation of its contribution to agency objectives and performance (9);
- Direct appropriate officials to provide better quantitative and fiscal data on training and education, such as the number of employees to be trained, the number of courses, time away from the job, capital outlays, and research and development expenditures (9).

Field Employees

The Task Force found that training in all categories, professional, administrative and technical, does not always reach field employees, especially those at small or isolated activities.

Recommendation

The Task Force recommends that the heads of agencies:

- Make certain that developmental opportunities, training and education are available to professional, administrative and technical em-

ployees who work at remote locations, in small groups, or alone (5, 6).

The Civil Service Commission should bring the needs of these employees to the attention of agency officials. (See the recommendation, earlier in this chapter, that Commission inspections should "pay special attention to" training and educational opportunities "in small field units.")

Charging Costs

The Report goes into the methods for charging costs of training. The Task Force believes that more support would develop for training if its costs were charged normally to the program or function which benefits. This would bring line officials directly into determinations as to what training is needed and how much time and money should be allotted to it. Research and development, executive development, orientation, and other general expenses not easily allocated to one function or program might be appropriated for separately.

Recommendation

The Task Force recommends that agency heads:

- Charge the costs of training and education to the programs and functions that benefit from them (9).

A Tax Problem

The Task Force reviewed a proposal to tax the value of training in educational institutions if it prepared or enabled an employee to perform a different job.

Recommendation

The Task Force recommends that the Secretary of the Treasury:

- Act to protect the investment of Government and employees in training by excluding from income of Federal trainees payments made by the Government to non-Federal facilities for their instruction (9).

Budget Reviews

The Director of the Bureau of the Budget has responsibility for Government-wide policy on planning, programming, and budgeting. His guidance to agency program and budget officials would help correct the present situation.

Recommendation

The Task Force recommends that the Director of the Bureau of the Budget:

- In budget reviews and analyses of management and organization, check on the adequacy of agency funds and man-years for training and education leading to improved public service, efficiency and economy (10).

Information About Training

The Task Force found that better information about training is needed both for management and employees.

Recommendations

The Task Force recommends that agency heads:

- Make substantial improvements in their information systems for training and education in order to provide readily accessible and current data to management at all levels of the organization (9);
- Publicize broadly to employees and employee organizations their training and education opportunities and counsel them on such programs (9).

Employee Development Officers

In spite of the fact that Government has many fine employee development officers who do their jobs well, it does not appear that as a group they are sufficiently influential with managers at all levels.

The Task Force uncovered some interesting facts about these officers. They are somewhat older than might be expected—40 percent are 50 and older. They are somewhat less educated as a group than one might expect—34 percent lack a college degree. As the projections prepared for the Report show that up to 3,000 such new officers will be needed in the next 10 years for jobs that will be more demanding than ever, the Task Force feels that this occupational group needs some special attention.

The Task Force also found some reluctance in agencies to adopt new training methodology.

Recommendations

The Task Force recommends that heads of agencies:

- Review performance requirements for em-

ployee development officers and prepare a 5-year manpower plan which will insure a supply of such officers with the education, training, and experience needed in the light of the agency's changing programs and objectives (9).

The Civil Service Commission now offers training to employee development officers. The Task Force would like to see it continue this effort and also have it support agency efforts to recruit excellent people for these jobs. It therefore recommends that the Civil Service Commission:

- Assist agencies to establish recruiting requirements and attract persons to employee development officer positions (9) ;
- Take steps to see that adequate training and education is provided for the employee development officer of the future (9).

To improve training methodology, the Task Force recommends that agency heads:

- Encourage experimentation in training tech-

niques including the development of group training methods, system training, programmed learning, and other innovations (3).

Sources

The Presidential Task Force on Career Advancement enjoyed its work with industrial and Federal officials. Agencies responded readily to requests for information. Some of this, condensed, has been recorded in an Annex to this Report. The original papers drafted for the Task Force have been filed in the archives of the Civil Service Commission. Scholars may wish to review them to see if they would like to make their own findings and recommendations.

Readers can get the flavor of the Report from this first chapter, but the Task Force urges them to go into the chapters which follow, since many suggestions had to be left in the text for lack of room for them here.

Chapter Two

Sharing an Investment

All 10 of the companies found by a jury of 300 highly placed industry executives to be the best managed in the United States have active, continuing management development programs. Federal agencies appraised by Government executives as above-average performers have above-average management and specialist training programs. Task Force members believe that this is no coincidence. Effective training can and does bring about improved performance. This conviction stands behind every recommendation in chapter one, every suggestion in this Report.

Training calls for the shrewdest investment of time, skill, and money if it is to produce creditable dividends.

Because it is such an influential instrument, in this chapter we will explore the nature of training and its goals.

What Is Training?

When a specialist shows a technician how to feed data into a computer, when a chemist tells an assistant how to change a procedure, when an experienced executive explains to a new official how to prepare for a Congressional hearing, we say that one man is training the other. Here we oversimplify. Showing and telling are only components. Social scientists and educators have considerable evidence that training is far more complex and difficult. It begins within the individual.

The Employee's Responsibility

In 1958, the Congress and the President ordered Federal managers to establish training programs. The Government Employees Training Act says: "it is necessary and desirable in the public interest that self-education, self-improvement, and self-training

* * * be supplemented by Government-sponsored programs." In short, the Act placed the basic responsibility for his own development on the initiative of the employee himself, and made all other training supplemental to his efforts. If he wants to learn, to advance, opportunities are at hand to help him. Once he is motivated to seek them out, he will get guidance from management.

The Manager's Goal

Learning, says the psychologist, occurs when an experience changes a person in some way. A manager's goal is to channel change in a specific direction. When he seeks to do this through training, he must provide an attractive experience, designed not alone to improve skills and knowledge, but to stimulate feelings, to awaken attitudes, to prompt the beginnings of broadened new concepts toward rewarding personal gains.

Training is of value to the extent that an employee accepts it, finds it to be a significant experience, and is thereby changed.

Why Train?

Why does a manager seek change through training? Common sense provides many of the answers. When an engineer first comes to Government, he must learn the conventions used on his agency's drawings. When an improved device for treating kidney dysfunction arrives at a hospital, doctors, nurses, and technicians must learn to use it. Economists, no matter how experienced, must continually study new theories on model construction. True, such employees can learn by themselves to do the things required of them. But where management adds to the motivation to learn, develops training plans, provides texts and other materials,

and answers questions as they arise, the learning time is greatly reduced. Training accelerates learning. At the same time, it lets employees share management's viewpoint on the work at hand, what should be done, and where and when and how, to make it most productive. Such insight into management thinking helps prepare specialists who will eventually advance to management responsibilities.

When the Task Force surveyed agency practices, it found that they train to:

- Attract a better quality recruit
- Get work done better
- Put meaning into work
- Facilitate optimum utilization of employee abilities
- Develop new skills, knowledges, and concepts
- Foster employee understanding of agency goals and contributions to work improvement
- Prepare for more responsible work
- Make actions more consistent with policy and procedure
- Reduce unnecessary conflict
- Overcome complacency; foster excellence
- Improve the quality of supervision
- Increase managerial effectiveness
- Improve agency administration
- Instruct in new methods, procedures and technology

They are all creditable reasons for investing in training. Some are more significant than others. One is of particular contemporary consequence.

A Special Problem

Training "to instruct in new methods, procedures and technology" is of dramatic current impact. Ours is an age of such conscious change, and so much of it, that it makes the most exacting demands on people who must keep up with it. Professional and technical employees and the executives who must bring knowledgeable administration to their fields are affected daily by change, indeed they themselves are continuously creating it. The problems they face are provocatively focused in a report by the National Commission on Technology, Automation, and Economic Progress, which states that:

- Half of what an engineer has learned today will be obsolete in 10 years;
- Half of what he will need to know 10 years from now is not available to him today;

- 80 percent of modern medical practice was discovered in the last 20 years;
- Knowledge is now accumulating at such a rapid rate that it will double in the next 15 years.

Obviously, management-sponsored training for employees involved with such change must be most knowledgeable, thoroughly planned, and precisely carried out. Haphazard support for professional, administrative, and technical employee learning can be only wasteful of valuable time and invaluable skill.

A Capital Investment

Training and education are capital investments which contribute significantly to a nation's Gross National Product. In one study, Edward F. Dennison estimated that the improvement from 1929 to 1957 in the quality of the labor force due to education contributed 23 percent of the total growth of the national product, whereas the increase in the capital input contributed about 15 percent of total growth.*

How Train?

Training is inherently a part of every manager's job. For example, how does a manager effectively communicate to subordinates his agency's objectives, policies, and procedures? Telling, alone, is not enough. Managers need to provide experiences which activate the desired learning—that is, they must train.

An internal revenue agent is not told how to audit a corporation return. Effective management motivates him to study corporate accounting practices, technical terms used in the industry, and tax court decisions. He works first with an experienced auditor who can take over if it should become necessary.

Eventually, under a careful, management-planned program, he is trained in how to tackle new and unusual situations in a wide variety of corporations. Gradually he develops the expertise which will enable him to take independent action in

* Dennison, Edward F. *The Sources of Economic Growth in the United States and the Alternatives Before us*. New York, Committee for Economic Development. 1962. pp. 267-268.

such situations, no matter how unpredictable they may be. In short, management seeks to build in him knowledge, skills, and attitudes which will equip him to cope self-reliantly with any job-related circumstances he may encounter. He is but one example—many professional, administrative, and technical employees require considerable freedom for independent action under unforeseen conditions. Planned training—certainly not just telling—is the means by which managers can develop employees competent to act independently, yet attuned to work in reasonable coordination. Such training is a mutual investment.

Taking Stock

Task Force members, from their collective experiences, are convinced that training and education are major factors in increasing employee productivity. Investment in planned, perceptive employee development gives good returns, shared three ways. Government gets elevation of performance and perspectives. Employees get status, satisfaction, and broadened career opportunities. The public, whose taxes support the training and education, gets better service at reduced cost.

Government supplies money, space, equipment, materials, instructors, and time. The employee contributes time, effort, self-evaluation, and sometimes money. Employees and management will both profit if both participate in determining training needs and planning effective programs to fulfill them.

Because training benefits groups and occupations, professional associations and employee organizations should also be consulted in the planning stages to elicit both their views and support.

Since training is indispensable, Government needs to make certain that it invests wisely in training and education and that it obtains as high a return as possible.

Building Blocks

Such judicious investment requires a basic understanding of training and its goals. Building on what we have said so far, we offer these premises:

- Self development requires employee initiative and persistence
- Learning arises from experiences which change the individual or the group
- The best learning occurs when supervisors develop work environment which encourages employees to seek it actively
- Training provides management-sponsored, goal-oriented learning experiences
- Work itself provides a variety of experiences which managers can use for training
- Training meets the organization's needs for change

These are building blocks. When managers and employees work together, they build. If they pull in opposite directions, they block.

Recommendations

The Task Force recommends:

That heads of agencies create conditions for professional, scientific, and administrative employees where the need for self development is apparent, personal efforts are rewarded, study materials are readily accessible, and opportunities to use new knowledge, concepts and skills are made available;

That Federal managers in their day-to-day work relationships enable employees to realize that their own immediate and long-range goals can be compatibly integrated with agency operational objectives and with long-range Government goals;

That Federal managers take advantage of the variety of work and the flexibility of assignment to provide work experiences which will promote growth, stimulate self development, and bring about improved public service.

Chapter Three

The Individual and the Organization

Work is purposeful activity. Training is purposeful activity which builds knowledge, skills, and attitudes, improves performance and advances an organization toward its goals. Chapter two focused primarily on the nature of training, and its application to employees and managers as individuals. This chapter moves on to look at training as a means of fitting unique individuals into integrated, purposeful organizations.

Here is an illustration of the reliance of an individual on his organization. When a Navy Department scientist after years of study discovered a cause-and-effect relationship in the field of physics, his agency gave him an award, his professional associates named the law after him, and students from afar sought his advice. These acts paid tribute to the creative genius of an individual.

The physicist received help in his long study from many people in the same organization: a mathematician, several librarians, an optical specialist, a glass molder, two machinists, an electrician, a file clerk. Each of them made an essential, if small contribution to the scientist's triumph. These acts demonstrated the cooperative genius of an organization.

Management's Responsibility

Managers must be concerned not only with training which brings out the best in individuals, but also with training that guides and directs individuals toward interrelating with each other in a working group, toward better overall performance as a team or a system. The Task Force study of Federal agencies revealed great variation in the effectiveness with which they approach these different aspects of training. More sophisticated agencies, usually

those with large numbers of employees, spend considerable effort on training of individuals alone or in classes. Other agencies spend only sporadic effort on training of individuals and little or no training beyond that. Few agencies put much effort into training work groups, and even less on training employees who are part of systems that cut across division or bureau lines.

This chapter, therefore, presents for the concern of Federal officials a few fundamentals on the training for individuals, groups, and systems.

Motivation and Learning

People are amazingly adaptive. They can work in Arctic cold and tropical heat, in crowded cities and lonely deserts, in noisy factories and quiet laboratories. On the other hand, it is a scientific fact that most people tend to resist change imposed on them. Like rivers, they flow smoothly along old courses, but moving them to new channels requires skilled effort.

A manager wants stability when employees are turning out quantities of high-quality work and flexibility when he wants the same employees to adapt to organizational, technological, or procedural changes. Training is a most important assist to a manager who would bring about both change from the old and stability in the new. Like a modern machine which is so delicate that it can gently crack a peanut shell and so strong it can make steel flow throughout a die, training is a remarkably flexible instrument. Sound training gets its delicate selectivity from managers and instructors and its forming strength from the needs and desires of individuals and the building and conforming pressures of groups.

Individual Training

To the two-way interaction which is training, the individual brings many factors:

Intelligence	Motivations and values
Experience	Biases and prejudices
Knowledge and skills	Emotional balance
Ambition, perseverance	Goals and objectives
Physical capacity	Relations with others

A manager needs a handle by which he can attract an employee to training experiences that will bring about learning and, therefore, change. Motivations, made up of needs and desires, offer one of the most useful handles to managers who would train. In the work situation, the most significant motivations are probably the needs for:

- Feeling important
- Security
- Satisfaction

Employees respond to a wide variety of incentives and these are compelling ones. Take for example, satisfaction. Employees get satisfaction from interacting with their fellow employees. From a supervisor's or manager's point of view, the desirable thing is that employees get satisfaction out of interacting with him too. Normally, an employee gets such satisfaction by producing good work that wins management approval. Aware of this incentive, management can tie it to training and self development. Effectively motivated, an employee will come to see such development as an attractive means of fulfilling his very human need for satisfaction.

A manager, then, may tap an employee's particular needs and desires so that he will respond to training experiences and make them his own. A supervisor working face to face with one employee can take into account both the skills and knowledge the employee needs and the motivations which will cause him to accept the training experience and thereby to change. A manager or employee development officer who would train a work group or employees in a system must use additional forces to bring about change.

Group Training

Here the word "group" has a special interpretation. It means a number of people who have inter-related enough to develop common attitudes. A collection of 20 to 30 individuals in a classroom is not such a group. A half dozen employees who

have worked with the same supervisor for months is such a group. They tend to stick together sufficiently to support or resist changes which a supervisor seeks to bring about.

Reports to us by Federal agencies and data collected from progressive industries show that the principles of group training are becoming well understood and well applied. From these and from writings of social scientists, it seems clear that in cohesive, healthy groups a manager or instructor will find factors such as:

Unified membership feelings	Facilitative attitudes
Common goals	Strong group structure
High standards	Effective communication patterns

Of course, there are also external factors which affect groups—for example, their relations with other groups and with management, the complexities of the agency's program, and organizational controls.

A skilled supervisor, manager, or trainer who understands group processes may find it easier to change a group than an individual. Groups tend to move in one direction. If a manager can train a group to a new, higher standard of performance, the leader-members of that group will bring the laggards along, using the strengths of facilitative attitudes, common goals and shifts in personal relationships.

System Training

When we speak of systems, we mean people who develop relationships that cut across work groups. Our Navy Department physicist who won fame operated in a system. When he was making mathematical calculations, for example, he called upon librarians to find previous formulas for him, clerks to tabulate data, technicians to set up equipment and record the data, computer programmers to translate it into computer language, computer technicians to run the computer, and file clerks to arrange his data for ready reference. A system operates as part of a formal organization within which informal job relationships develop among co-workers. Such a structure permitted the physicist not only to call upon the people he needed for work in his behalf but also to have available the equipment, the physical objects he required—computer, forms, books, desks, space, and the like. Just as training is needed to get a work group to coordinate their activities, training is essential to get such

a system, made up of employees in different work groups, to coordinate their activities.

The Task Force found but a small amount of writing about system training. One mail-order house prepares for the Christmas season's special procedures ahead of time by routing dummy orders through the system and having employees direct, wrap, address, and account for dummy packages. They report that this training produces much improved performance when the real orders come flooding in. In another report, training of those involved in a system which plots airplane movements and alerts defense installations brought startling increases in productivity—up to 300 percent.

The Task Force suggests that Government move aggressively into system training.

Some Conclusions

It is appropriate here to sum up and draw a few conclusions:

- Employees change, but normally change slowly
- Employees tend to resist change imposed on them
- Motivation offers one of the best levers to overcome resistance of individuals to change
- Because the skills and knowledge needed vary with the individual and because the motivations to accept training also vary with the individual, training experiences must be designed to fit each individual
- Skilled managers and instructors find that once groups accept change, the individuals in them tend to accept the change also
- Although relatively little is available on system training, Government should explore this area

Recommendations

The need to improve and advance training methodology was supported by data obtained through questionnaires and interviews. The Task Force recommends:

That each agency head make sure that his supervisors and managers understand how to motivate individual learning;

That agency heads encourage experimentation in training techniques, including the development of group training methods, system training, programmed learning and other innovations.

The Task Force further suggests that agency heads set these goals for their executives, managers and supervisors:

- To develop each employee's potential to the fullest
- To bring about effective teamwork both in work groups and in systems that cut across work groups
- To integrate individuals, groups, and systems into a cohesive organization
- To ready individuals, groups and systems for change
- To foster sound democratic values among employees, supervisors, managers and executives
- To make Government activities means to ends, not ends in themselves
- To improve the public service

Classroom Training

The recommendations above apply to training in the work environment: a supervisor training one employee, a supervisor or manager training a group, a manager training employees in a system. However, the discussion preceding them applies also to classroom training.

If, say, 30 individuals are brought into a classroom, and they remain individuals, then the teacher is obliged to instill 30 separate degrees of skills and knowledges, presented in some heroic way that will divine and stimulate 30 different sets of human motivation. In some areas, where instruction is excellent, it can be done, even done well, if great care is taken. In most areas, however, it is extremely difficult.

Here is where group teaching methods can be very effective. A skilled instructor, by promoting interaction and competition among his students, by using the many psychological tools of group learning, can produce dynamic results. Challenged by this kind of teaching, individuals tend to form themselves into real groups, reinforcing each other because their motives and needs are met through interaction, becoming cohesive, absorbing faster, growing more quickly. Some Federal training programs using these methods are successfully evolving trainees into cohesive groups, and report good results.

The Task Force suggests that employee development officers and instructors not familiar with this principle should look into group learning methods.

Administration

Up to this point in this chapter, training has been discussed as relationships between individuals,

groups of employees, and persons in systems. These relationships can be facilitated if they are administered—that is, based on continuing efforts, consciously planned to produce specified results. Training administration is well understood but not always well executed.

Orientation

Data from Federal agencies show that orientation training is given to practically all professional, administrative, and technical employees. However, it is apparent that the quality varies.

Social scientists and observant executives say that what happens to a new employee in the first few weeks is important. When a person goes to a new job, especially a young person, he is more open to attitude-building suggestions and instruction in ways of doing work than he is likely to be later. People tend to resist change but orientation catches them before they have built habits, techniques, and attitudes toward the work and the agency. They are like new computers ready and waiting to be fed with data.

An analysis of agencies that pay special attention to the orientation of professional, administrative and technical employees leads the Task Force to conclude that agency managers would do well to:

- Assign new employees to able supervisors who will take time to orient and guide them
- Help new employees visualize different steps in their careers and identify how self development will propel them toward more responsible assignments
- Make clear to them the special obligations of Federal employees to the public
- Start them building an understanding of their occupation, their agency, and other organizations they will deal with in their careers
- Stimulate interest in the problems of leadership and administration and in agency programs for management development
- Build in those whose careers will involve travel or geographical movement between Washington, the field, even overseas, an acceptance of the necessity for mobility

Recommendation

The Task Force recommends:

That agency heads review their orientation programs to make certain that they motivate professional, administrative and technical employees

to early habits of self development and foster attitudes appropriate to those in public service.

On-the-Job Training

More emphasis is now being placed in many Federal agencies on formal training and education away from the job than on supervisor-manager training at the work site. The Task Force suggests that agencies avoid an imbalance which may distract the attention of managers, supervisors, and employee development staff from the total employee career development needs.

On-the-job training in the daily work environment is still the most important and effective means of developing professional, administrative and technical employees. Formal training away from the job cannot substitute for it. On the contrary, renewed emphasis should be placed on this time-honored method for employee development.

The Task Force suggests that heads of agencies and major sub-units within agencies should review practices in their organizations to ensure that employee development is an integral part of the job at all levels of management and supervision.

The Task Force also suggests that agencies select for assignment to supervisory and managerial posts people with the ability to create a climate of growth, stimulate self development, and provide needed training on the job.

Recommendations

To provide needed administration of this effort, the Task Force recommends:

That each agency head establish systems for monitoring and evaluating on-the-job training;

That each agency head review and improve practices used by managers and supervisors for on-the-job training and development;

That agency heads provide in performance appraisal systems for review and feedback to supervisors and managers on their staff development activities.

Career Systems

Once a professional, administrative or technical employee is embarked well on his career, he, more than most other Government employees, faces frequent change. He will be better prepared for it and will accept it more readily if agency officials have a conscious, planned, career system. Some

Federal agencies have such systems, but many employees are not covered by them. The conclusion, empirically derived, is that employees in sound career systems are more concerned with developing themselves in ways that will be of value to their agency than employees who lack such guidance. The mark of a professional is the capacity for self development. Career systems support and extend the professional's natural efforts to grow.

Recommendation

The Task Force recommends:

That agency heads direct the establishment of and guide the operation of career systems for the advancement, training, and education of professional, administrative, and technical employees.

Career systems will be explored in more detail in chapter nine.

Policy-Setting for Training

The Task Force sees training and educational programs as integral parts of personnel management, the basic objectives of which are:

- To obtain, develop, and retain an efficient, productive workforce
- To provide a stimulating environment which will generate leadership, promote productivity, encourage imagination and initiative, and provide for wise and decisive handling of public affairs
- To develop a pride in individual and group achievement and recognize outstanding contributions
- To assure intelligent utilization, conservation and development of the workforce*

All of these are pertinent to policymaking for training and education. The last one—manpower utilization—risks being overlooked unless managers and executives provide leadership to implement it.

Training Opportunities for Women

Task Force studies suggest that special attention needs to be paid to opening more training opportunities to women. They show, for example, that women are under-represented in Government-supported, full-time, and residential university courses.

A great many women can be interested in combining family life with a Government career. Some can be interested in returning to employment after children have left home. Training and education

*Adapted from the Federal Personnel Manual.

can be used to heighten this interest, and to open new avenues of advancement and service.

Training for Disadvantaged Employees

Although minority groups were well-represented in Government-sponsored courses, Task Force studies point to the need for greater use of training and education to make sound utilization of employees who were disadvantaged through inadequate education or limited employment opportunities. The Civil Service Commission has pointed the way to achieve this through its bulletins on the MUST program (Maximum Utilization of Skills and Training).

Management's Responsibility

Of course, providing training opportunities alone will not insure good utilization practices. Managers must create conditions which motivate women, members of minority groups, and persons with disadvantaged backgrounds to seek out and accept training opportunities, and more importantly to develop themselves continuously. Managers must advance persons within careers regardless of race, creed, color, nationality, or sex.

Recommendations

The Task Force recommends:

That agency heads make sure that career advancement training and educational opportunities are equitably open to qualified employees regardless of race, creed, color, nationality, or sex;

That agency heads support the Civil Service Commission's MUST program by opening more training opportunities to employees who have been disadvantaged economically and educationally.

Need for Staff Assistance

The recommendations presented in chapters two and three can be best carried out by line officers and supervisors. They do, however, pose some technical problems in administration which call for competent staff advice and assistance. The Task Force, therefore, recommends:

That the Civil Service Commission provide technical assistance to agencies in improving their training and educational programs and systems for career advancement.

To implement this recommendation, the Task Force visualizes the Commission analyzing and re-

porting data about best practices in orientation, on-the-job training, career systems and manpower utilization, consulting with agencies on the administration of their training programs, exploring new techniques such as group training, system training, programmed learning, and the use of television; and recommending steps to better training and education.

The rest of this Report will examine the overall need for professional, administrative, and technical employees, the training of employees for administration, the training of employees who remain specialists, the use of the resources of Government and educational institutions for training, and the planning and operating of Federal training and education.

Chapter Four

A Forecast

Strong tides of change erode old Government programs and build new ones. As they rise and fall they bring waves of reorganizations, transformed methods, new jobs, and a demand for quite different training and education, especially for professional, administrative, and technical employees. Of the host of factors affecting the future of training and education, three seem most important—changes in Government programs, in occupational requirements, and in technology.

Changes In Government Programs

The Bureau of Labor Statistics, from Government data and projections, concludes that major changes in Federal programs are probable from now to 1975. Those that seem likely to expand rapidly are:

Education	Anti-poverty programs
Housing	Natural resources
Social security	Water and air pollution
Community development	Commerce and transportation

Programs likely to expand slowly are:

International affairs	Veterans affairs
Space	

Agricultural programs may decline.

The assumptions adopted by the Bureau of Labor Statistics in making the above projections and others in this chapter are:

- (1) U.S. population will increase 16 percent in 10 years, from 195 to 225 million.
- (2) The total labor force will increase 20 percent in that time, from 78.4 to 94.1 million.
- (3) Peacetime conditions will prevail by 1975. Armed Forces will be about 2.7 million, the same as in 1964.

- (4) The unemployment rate will be 3 percent.
- (5) Our gross national product will increase by half to over \$1 trillion (in 1965 dollars).
- (6) The Federal Government will be actively engaged in a cooperative approach to a variety of domestic problems, such as water and air pollution. Expenditures will rise to \$200 billion (in 1954 dollars).

Changes in Occupational Requirements

From this data, the Bureau of Labor Statistics forecasts an increase in Federal Government employment of about 11 percent by 1975. However, it predicts that there will be a considerably greater increase in the number of professional, administrative, and technical employees who now number about 760,000 (data from agency reports to the Task Force). Applying Bureau of Labor Statistics projections to this figure:

Professional, administrative, and technical occupations

Date	Positions	Recruiting needs
1966.....	760, 000
1966-75: New positions.....	225, 000	225, 000
1966-75: Replacement of turn-over.....	675, 000
Total.....	985, 000	900, 000
Change, percent.....	30

Greatest increases in new jobs are expected by the Bureau of Labor Statistics to occur in occupations such as these:

Selected occupations

Occupation	1965 employ- ment	Projected 1975 require- ments ¹	Percent increase 1966-75
Biological scientists	12, 700	16, 500	30
Chemists	7, 700	10, 400	36
Computer occupations	12, 400	21, 600	74
Employee development specialists	1, 600	2, 300	41
Engineers	75, 300	104, 300	39
Lawyers	10, 900	14, 600	35
Physicists	5, 100	7, 300	44
Psychologists	1, 800	2, 800	53
Social service workers	2, 000	3, 500	73
Statisticians	2, 300	3, 100	34

¹ Figures do not include replacements for turnover.

Other occupational needs likely to increase significantly are for physicians, urban planners, and regional planners.

Changes in Technology

Technology, the precocious giant whose growth spurted in the 1940's, will expand toward ever more amazing gains. The introduction and use of new products, machines, methods, and materials will require continuing modification of existing Federal training programs and institution of new ones. Training will continue to be needed to minimize disrupting effects on individual workers when jobs are eliminated or old skills become obsolete.

Supervisors, managers, and executives must continually acquire new knowledge and develop new skills, not only in order to be effective in creating the methods, procedures, tools, and equipment to apply to the new technology, but also in order to create the leadership, organizations, and institutions that the new technology inevitably demands.

Illustrating the dramatic changes in technology which will place heavy demands on training and educational systems are four fields: computers, communications, energy, and health.

Computers

Expected innovations in computer technology will bring about the need for new training and education for professional, administrative, and technical employees in the coming decade. Electronic computers are gaining in speed, capacity, and versatility.

Optical scanning devices are being improved and will be more widely used, thereby eliminating manual transcription. The establishment of central computers which can be used by separate offices in different locations will provide increased services to scientists, engineers, and other professionals, and will change their work methods. Engineers, mathematicians, auditors, accountants, economists, and managers in general will need to learn computer languages, such as FORTRAN, to do their jobs.

Communications

New communications systems are creating new Government services and operations. Computers are being linked to provide improved police networks, improved medical diagnostic systems, a new patent search system, a new nationwide employment service interchange. The Defense Department's already vast international network will become more complex as it moves to satellite transmission.

New communications systems are likely to have significant impact on Federal regulatory agencies. Community antenna systems for television, information utilities that store credit data, phone links for paying bills, and purchasing by wire all seem likely to drastically alter business and Government relationships.

Professional, administrative, and technical employees in many different occupations will need training as a result of these developments.

Energy

Changes in methods of energy production will present professional, administrative, and technical employees with new problems of research, construction, and regulation. New, large-scale nuclear electric powerplants are being planned. Nuclear explosion technology for peaceful uses is being pressed. Atomic energy is already being used for the propulsion of ships and is being examined for use in space vehicles.

Regulatory agencies are more and more concerned with national power grids, hydroelectric power generation, gas turbines for generation of electric power, and the use of underwater robots for digging of oil wells. Many employees will need training to update them in these rapidly changing methods.

Health

Trends in the field of health seem certain to continue to add to the numbers of highly trained medical, scientific, and other specialists needed. Computers and automated laboratory equipment will likely increase the quantity and quality of the work done, and will require exacting training for new skills among professional, administrative, and technical employees.

Important advances are being made in surgical techniques, use of organ transplants, and artificial organs. Hospital supplies and equipment are rapidly changing. The impact of these innovations will certainly affect training of medical personnel at many levels.

Help from Social Science

Much of this training must, by the nature of the needs, be technological. Its implementation can be facilitated through recent findings from social science. Agency heads and managers in all agencies, especially those installing new programs or shifting to new goals, should have appropriate staff keep in touch with social science research into leadership, management, and administration, and have them translate useful discoveries into training for supervisors, managers, and executives. While its rate of change is slower than that of the physical sciences and engineering, social science knowledge is building up rapidly. Agency officials needing new

methods for administering new and more complex programs should look into this source of help.

Plan and Act

The projections by the Bureau of Labor Statistics are flashing warning signals. Planning is needed. Action is needed. Beginning now, and steadily from this day forward. The Task Force urges agency officials to review projections such as those of the Civil Service Commission and the Bureau of Labor Statistics to discover potential problems. It urges them to make their own manpower projections to pinpoint what their future training needs are likely to be.

The rest of this Report outlines steps which the Task Force members recommend as means of meeting the test of the future efficiently and economically, and at the same time providing ever better public service. What is done today to anticipate Federal training and education needs will be an investment producing high returns tomorrow.

Recommendation

The Task Force recommends:

That executives and managers provide systems which will anticipate technological changes and plan for needed new or revised training and education.

Discussion of and recommendations on manpower planning will be found in chapter nine.

Development for Administration

This year, the employee turnover rate in the Federal Government is close to 2 percent a month. Thus, in addition to dealing with technological and program changes predicted by the Bureau of Labor Statistics, Federal executives, managers, and supervisors are having to deal with a stream of new people and suffer the loss of many experienced employees. In view of such variance, their organizations have a surprising stability.

This rises in part from the personalities and characteristics of the people who make up our organizations. Employees in the United States are outstanding. They are well educated, full of initiative, and work hard. However, they can and do react to proposed changes that displease them by moving to other jobs. They make the job of their bosses harder by resenting inadequacies in supervision and are even more critical of management, particularly when changes are proposed.

Federal managers, like those in business, face then a difficult situation: they must adapt their programs to changing situations, programs, and technology and they are coping with organizations which tend to resist change.

Preparation for Management

Some Federal managers and executives have a natural flair for keeping people on their toes, but most need training and development. This is logical. These people commonly have specialized education. They come to Government with degrees in such fields as engineering, medicine, law, physics, accounting, or economics. Such courses leave little or no time for study of human relations, leadership, and management. Too often, the demands of such disciplines discourage study in depth even of political science and history.

The professional and the scientist prefer supervisors and managers who come from their own fields. The Task Force members agree that if such assignments are to be effectively made, the organization must create a climate which stimulates specialist-leaders to acquire through reading, observation, or formal training the background knowledge and concepts they need for effectual performance of their administrative functions.

Even though management is an art, it needs conceptual bases. An artist with talent develops it through study—composition, design, color, brush techniques. A professional with talent for administration can develop it through study of public administration, management, human relations, and leadership. Study alone will not make a professional an able manager. It is necessary to put potential and study together, put principles into practice, and provide inputs of guidance from a reliable, trustworthy source on the quality of performance.

If professionals and scientists do not wish to prepare themselves adequately for administration, they may need to give up their preference for leaders chosen from their own fields. Physicians have, in some cases, decided to turn over the running of hospitals to lay administrators rather than take time themselves to learn all that is needed to manage such institutions.

Recommendation

The Task Force recommends:

That agency heads see to it that those selected to become managers and executives possess knowledge, abilities, and skills required to integrate their organizations into the agency and Government, to direct and carry out assigned missions, and maintain sustained high quality and efficient performance.

From a President's Viewpoint

Agencies reported to the Task Force that about three employees in a thousand are career executives. From a President's point of view, these executives should provide a continuity of operations to Government. His administration's policies, interpreted and guided by political appointees, need men well anchored in the organization who can translate these policies into efficient, well-run operations which will meet clientele or service needs.

Career executives should weld together the many different parts of Government so that reasonable consistency is achieved and the overall administration flavor is maintained. They should assess accurately the probable results of new policies and programs in terms of public responses, political reactions, and general effectiveness. They should weigh cost benefits objectively, and recommend priorities where programs compete.

Career executives should offer choices in the emphases to be given programs, keeping each choice consistent with the President's philosophy on Government goals.

The Military

Senior military officers are particularly well prepared by education and training to provide what a President wants and needs. The career system in the Army produces generals with broad knowledge of international affairs, global strategy, strengths of friendly and hostile nations, national resources, mobilization of our economy in support of military operations, and use of the military in defensive operations. Before making a proposal to overcome the lack of such training for civilians it is desirable to look at career executives from an agency head's point of view.

From an Agency Head's Viewpoint

The Secretary of Agriculture, for example, supervises programs as diverse as price support and production stabilization, conservation of soil and forests, crop insurance, rural community development, rural electrification, consumer protection, marketing, agricultural economics, extension educational programs, and many, many more. He looks for career executives who can use his agency's vast team of experts to create new solutions to old problems; who can guide the consultants, inspectors, technicians, and hundreds of other specialists to bet-

ter public service; who can operate an intelligence system to alert him to impending new problems; who can deal with the many clientele groups reasonably and productively; who can initiate new programs with effective use of the department's employees and effective participation of citizen groups. Other Department heads also seek competent career executives capable of carrying out their intricate duties with finesse and vision.

When we look from the top down, we see an appalling demand on career executives for skill and knowledge and abilities. A most competent individual could spend a lifetime preparing for such assignment. At present, few civilian agencies plan and carry out sound executive development programs that parallel those of the military and the Foreign Service of the United States. The Task Force finds this to be a serious deficiency.

Recommendations

The Task Force recommends a series of steps to correct this situation:

That the President direct the heads of agencies to take steps which will develop in career executives broad viewpoints as free as possible from the provincialism of occupation and specialization;

That the President direct agency heads to develop programs which will encourage people of outstanding potential to prepare themselves in early stages of their careers for possible advancement to top career levels and to supplement self-development with appropriate training and education;

That the President direct agency heads to develop programs of training and education for outstanding specialist managers which will broaden their knowledges, sharpen their skills, and improve their potential for advancement to executive posts;

That the President direct each agency head to designate a high-ranking official to activate an executive development program and provide resources to implement it.

Executive Assignment System

The President in Executive Order 11315, issued in November 1966, created an Executive Assignment System and directed the Civil Service Commission to recommend a program for the development of career executives. The Task Force whole-

heartedly supports this new system for it provides an affirmative framework on which improved executive training may now be erected.

The major elements in this new system are:

- Periodic review by agency heads with the Civil Service Commission of their plans for staffing upper level positions
- Provision of a broader base for search for career executives, both in Government and outside
- Accommodation of appointment procedures to emergency and short-term needs
- Increased utilization of executive talent on a Government-wide basis
- Increased recognition and opportunity for personal development and challenging assignments

The Civil Service Commission is responsible to the President for effective implementation and administration of the Executive Assignment System.

Broadening Assignments

The Executive Order creating the Executive Assignment System directs the Civil Service Commission to consult with agencies and establish specific qualification standards for assignment to jobs in the new system. Standards must, of course, be realistic; that is, they must be designed to sort out the best people from among those available, and rank them. But standards are not static. They can be raised. Government needs to provide assignments, experiences, training, and education which will add to the qualifications and improve the performances in executive ranks. Individual agencies can do much to elevate sights, but a coordinated, Government-wide effort would certainly be more effective.

Recommendations

The Task Force recommends:

That the President direct the Civil Service Commission in consultation with agencies to identify for developmental purposes the knowledge and skills needed by career executives to raise performance levels;

That he direct the Civil Service Commission in consultation with agencies to open assignments to career executives, short or long term, in Government agencies other than their own, or to training assignments outside Government, which provide experiences that will supplement agency efforts to develop broad viewpoints.

Residential Training for Executives

The central purpose of a residential training program for executives should be to provide continuity and responsiveness in Government operations, and to insure that those near the top are identified with the Government as a whole in the pursuit of national goals. In doing this the curriculum should be designed to:

- Foster a sense of common purpose, increase mutual understanding, and stimulate approaches to common problems among top-level career executives;
- Review the interrelationships of Government, business, education, and other institutions to increase versatility in achieving desirable national goals;
- Provide top-level career executives opportunities to explore current aspects of governmental process with an emphasis on emerging inter-governmental configurations;
- Widen knowledge of world affairs and explore methods for improving the administration of overseas programs;
- Afford top-level career executives with opportunities to further their understanding about the total governmental environment as it affects their work and decisions;
- Provide a forum for the discussion of governmental programs on an interagency basis for top careerists having special but related interests; and
- Foster executive attitudes which place high value on inventiveness, consideration of a widening range of administrative alternatives, and significant risk-taking to achieve difficult public objectives.

The Civil Service Commission has prepared a proposal for the establishment of a residential, career executive training institution which was reviewed by the Task Force and endorsed by it as meeting these criteria.

When the Federal residential training institution for career executives is created, agencies should (1) continue to provide specialized supervisory and management training which would prepare future executives for the advanced curriculum; and (2) continue to send managers to long-term, university educational programs which would broaden specialists' understanding of Government and society.

Recommendations

The Task Force recommends:

That the President direct the Civil Service

Commission in consultation with agencies to establish a program of intensive, full-time residential training for career executives which will:

(1) Enable them better to supply continuity and responsiveness in Government operations;

(2) Provide them with concepts and knowledge that they can use toward further self development; and

(3) Enable them to render more valuable service to the agency heads, the President, and the public.

That the President direct the heads of agencies to support the full-time residential training for career executives when it is established by the Commission.

Noncareer Assignments

The new Executive Assignment System provides for the exception of a position from the procedures required for making career executive assignments and filling it by a noncareer executive assignment when there is a need for filling the position by a person who will:

- Be advocating administration programs and supporting their controversial aspects
- Be participating significantly in determining major political policies
- Be serving as personal assistant to or adviser of a presidential appointee or other key political figure

Many officials having noncareer executive assignments fill very specialized positions. They need extensive professional training and experience, ability to develop policy and programs, and a sure hand on the levers by which their programs can be enthusiastically and forcefully moved.

Presidents and heads of agencies have been moving some career men and women into these non-career posts. The Task Force suggests that when agency heads have identified a career employee with potential for noncareer assignment, they give him assignments, experiences, and training which will prepare him for effective performance in a very different role.

An Executive's Subordinates

This Report emphasizes the value of on-the-job training by a competent leader. Senior career executives must keep in mind their responsibility in their day-to-day contacts for developing their im-

mediate subordinates, from whom must come some day their replacements. Every phone call, every meeting, every returned file provides experiences for subordinates which help to train them. The point is that these experiences should be used constructively to foster growth, stimulate self development, and deepen understanding.

Managers

Career executives are supported most closely by men and women, 26 out of each 1,000 employees, who have managerial assignments. Some head large organizations and are backed up by personnel, budget, supply, and other staff officers. Others head organizations having several supervisors, a handful of employees, and no full-time staff officers. Reports collected from agencies show that only one-half of Federal managers have been sent to formal training and further that widely different approaches are taken in the training of these important people. The Task Force found agencies sending managers to courses more properly suited to supervisors, and vice versa.

Managers have functions different from those of their executive bosses, different from those of the supervisors who report to them. It is not possible to draw a firm line between managers and executives, but there are some distinctions. Managers are more concerned with operations. They make more specific use of their knowledge of economics, engineering, accounting, or other specialization. They stand closer to employees who do the work, yet remain an integral part of the agency management team.

When the work of managers is compared with that of supervisors, there are sharper distinctions. A manager needs to be a good supervisor, but he is more than just a supervisor. Managers, like supervisors, plan, but on a broader scale; interpret policy, but more authoritatively; represent their more numerous subordinates to top management, deal more importantly with employee organizations, and bargain with their peers in matters of greater import. On the task side, we observe that managers almost always supervise more diverse tasks, more complex workflows, and a greater variety of occupational groups than do supervisors.

The differences between managers and executives and managers and supervisors are important. This leads us to conclude that agencies should provide training and education to fit their special needs

and not lump them into programs for executives or supervisors.

Recommendations

From this analysis, we have set some targets for the training and education of managers. The Task Force recommends:

That agency heads place on executives the responsibility for the training and education of managers, and that a system be established for monitoring the effectiveness with which this is done on the job and in formal courses;

That agency heads create effective programs which enlarge each manager's depth of understanding of the professional, scientific, or technical fields under his supervision;

That agency heads increase each manager's skill in the techniques of management and the processes of administration; extend his effectiveness in dealing with Federal employee organizations under Executive Order 10988; develop his capacity for efficient use of resources; broaden his understanding of agency and Government missions; and sharpen his ability to relate his assignment to national goals.

Specialists Into Managers

Employees who move into management from professional, scientific, or technical positions should be carefully evaluated to determine their weaknesses and strengths and then counseled on how they can best overcome the former and best use the latter. Depending on need, such employees should take supervisory training and attend university courses for horizon-stretching. Most managers should take agency-conducted courses which will expand their knowledge of agency mission, policies, management style, and procedures. Those with potential for advancement should be sent to one of the Civil Service Commission's Executive Seminar Centers, both for the course content and in order to share knowledge and experiences with employees from other agencies.

On-the-Job Development

Wherever possible, new managers should be placed initially under executives who have the capacity to motivate, stimulate, and guide their broadening and deepening through work assignments and self development. The agency should

make periodicals and books on management easily accessible to all managers. Whenever possible, special assignments should be made, not only to get needed work done, but also to test their mettle. Whenever possible, men should serve under different bosses in order to see firsthand the effects of the many styles of leadership. Such rotation is desirable not only within one agency; the Task Force suggests that exchanges be arranged among agencies, including the staff agencies—Bureau of the Budget, Civil Service Commission, General Accounting Office, and General Services Administration.

Supervisors

Agencies reported that about 88 employees out of each 1,000 are supervisors. About one supervisor in 15 was new to his job in the past year. The Government has many supervisors and it has a sizable turnover among them.

Social scientists report that a manager looks upon a supervisor as the man or woman who leads a group to produce a high quantity of high quality work, who gets them to observe agency policies and procedures, and who controls assignments, supplies, expenditures, equipment, and space. From the point of view of the employee, a supervisor is a member of the group who protects them from arbitrary management decisions and rules, who helps make work interesting, who is responsible for bringing into the group new and acceptable associates, who makes sure that working conditions are pleasant, and who will protect the employee's job, his rights, and his status. Employees commonly expect their supervisors to be skilled in a specialty—accountants expect their supervisors to be skilled in solving difficult accounting problems, computer technicians expect their supervisors to be masters of both workflow and equipment, and engineers expect their bosses to be more than handbook technicians.

Truly, the supervisor is the man in the middle—responsible both to management and to his work group.

Agency targets for supervisory training should be:

- Knowledge:
 - Occupational
 - Organizational
- Skills:
 - Analytical
 - Technical
 - Performance of work
 - Human relations and leadership

Conceptual Administrative

Reports to the Task Force show:

- Three out of four supervisors in Washington have participated in formal training
- In some small field activities, little or no formal training is provided supervisors
- Most agencies lack systems for monitoring on-the-job training of supervisors by their managers

The Task Force has concluded that too little on-the-job training is provided supervisors by managers busy with operating problems.

Recommendations

The Task Force recommends:

That agency heads make certain that managers provide much more on-the-job training and guidance of supervisors than they now do;

That agency heads make certain that developmental opportunities, training, and education are available to professional, administrative, and technical employees who work at remote locations, in small groups or alone.

After an individual has become a supervisor his manager should help him grow and become more effective in his job. The manager should encourage him to discuss human relations and other problems that arise. As many supervisors avoid such discussions, managers must therefore create relationships which invite shared problem solving and stimulate self development.

As the supervisor gains experience, an agency should provide opportunities for formal training in the skills and knowledge he needs.

Pre-supervisory Training

Much of the knowledge and some of the skills needed by supervisors can and should be obtained before an employee becomes a leader of a work group. Reports to the Task Force show that few agencies prepare employees with potential prior to assignment to leadership posts.

The purpose of such training should be the building of concepts of leadership, group behavior, diagnosis of human relations problems, administrative processes, and personnel systems. With solid preparation, a new supervisor should be able to detect his mistakes more surely and take remedial action more promptly. He can become a leader more surely and more quickly if he has a sound

conceptual framework on which to hang his experiences.

Recommendation

The Task Force recommends:

That agency heads give employees with potential preparatory assignments, experiences, and training before being placed in leadership posts.

Specialist-Leaders

As stated earlier in this chapter, most Federal executives, managers, and supervisors have training and experience as specialists. The Task Force was not surprised, therefore, to learn that some managers and supervisors have reputations for being far more concerned with tasks, with the jobs at hand, than with people and administrative processes.

Take a typical case: A physicist comes from graduate school to Government. He is full of his subject. It is the most important thing in the world to him. Assigned to a laboratory, he plunges into his work, enjoying excellent equipment, and fascinated by the limitless opportunities to learn more physics and accomplish great things. Maybe he spends five or more years probing atomic structure. He does learn. He has accomplished good, if not yet great things. He has broadened his base, widened his scope. It is time he took his place on the leadership ladder. Invited to move up, he is of course pleased. But the man has become so absorbed by his work, so committed to it, that he may well be resistant to new responsibilities as intrusions on his specialty.

Dedication like this is seen every day in Government. It is at once commendable and frustrating. Certainly it confirms the recommendation for early training of professional, scientific, and technical people toward management goals, their orientation from the very beginning to the realization that they are part of an organization made up of human beings who have a common aim.

The Organization

The Task Force suggests:

- That most specialists now work for organizations because these entities facilitate achievement of their goals, provide them security, and supply more financial support, better equipped laboratories, and better-trained technicians.
- That only large organizations can now provide the means for carrying out the work of profes-

sionals whose projects are complex, demanding, and far reaching in effect.

Professional, scientific, and technical talent in Government can and needs to be amplified in an atmosphere of administrative process and organizational structure. This concept has guided the Task Force in making its recommendations in chapter six: Training for Specialization.

Conclusion

After studying the experience of industry and Government, the Task Force has come to a conclusion. Government has a need for an organizational system which would steadily search out employees with potential for administration and provide the specific training and education essential to ready them realistically for each stage of their advancement. Such a system would eliminate much of

what is haphazard and deficient today and give to Government a better prepared, more orderly flow of career advancement. Chapter nine will provide suggestions on how this can be done.

Recommendations

The Task Force recommends:

That the Civil Service Commission provide technical assistance to agencies on developing supervisors, managers, and executives on the job and off;

That the Civil Service Commission counsel heads of agencies and top-level executives as needed to improve development, training, and education for administration; and

That the Civil Service Commission report to the President on the success with which agencies maintain career advancement systems.

Development for Specialization

Professionals, scientists, and technicians, whose fathers drank from a leisurely fountain of knowledge, seek today to sample a torrent that pours out with the intensity of an open, high-pressure fire hydrant. No one man can have today a catholic knowledge of science. Few can keep up with the publications in even one field. The situation commands more and more specialization. This, in turn, calls for more effective methods of distilling wisdom, accelerating learning, and constantly improving quality. These, then, are overall goals of training for specialization.

The Task Force urges agency heads to make sure that executives and managers understand the precious necessity of specialist training to the continuity of their programs.

Diversity in the Professions and Science

Reports from Federal agencies show an amazing diversity of professional, scientific, and technical occupations. In the professions are found doctors, lawyers, accountants, engineers, and a host of others. In the sciences, to name but a few, are physicists, chemists, soil scientists, psychologists, biologists, and oceanographers. Many of these people do the kind of work you would expect them to do—doctors treat the sick and physicists explore atoms. But many others make surprising use of their academic training. For example, a report prepared for the Task Force shows that about 16 percent of oceanographers have degrees in that subject. The rest came from such fields as geology, physics, meteorology, engineering, biology, chemistry, and mathematics. More than one-third employed in mathematics had their highest degree in some other field, such as engineering, physics, or economics. Nor is this phenomenon exclusive to Government. Industries are also recruiting for a

single occupation from several academic disciplines, especially in new fields.

Diversity in the professions and science is demonstrated by the variety of tasks these highly trained specialists perform. For example, physicists in the same organization may work in such quite different fields as magnetics, optics, fluid mechanics, radio frequencies, measurement, instrumentation, and aerodynamics. In one study, the National Aeronautics and Space Administration found that it had about 1,000 physicists assigned to over 80 specialties.

The planning and conducting of training for professional and scientific employees is obviously complicated by this diversity both in backgrounds and assignments.

Diversity in Nonprofessional Fields

The Task Force also looked at other occupations in which the people hired normally have college degrees but are not given the coveted label of "professional." These men and women fill such various jobs as budget officers, placement officers, computer programmers, purchasing specialists, air traffic controllers, investigators, inspectors, and transportation specialists.

Here, also, people do the kind of work one might expect—business administration majors enter personnel or budget work, journalism majors become information specialists and writers, and language majors take foreign trade or intelligence positions. However, here again Government employs many people in jobs that are a bit afield from their college training. Biologists become inspectors, foresters are found as trainers, English majors emerge as fiscal officers, political scientists enter the field of mortgage credit. And like their professional brethren, these specialize within specialties. One purchasing officer may buy only engineering and

construction equipment and another paper and pencils. One personnel officer may recruit primarily scientists and another anyone who can read and write reasonably well.

The training, then, of this kind of specialist also presents some intricate problems. Later on, this chapter will show that the broad field of technician training too, poses its own difficult questions.

Specialist Distribution

Specialists make up slightly less than a third of Government:

Federal employment of specialists

Occupational category	Total employees in category	Percent of total Federal civilian employment
Professional	271, 000	10
Administrative-technical	350, 000	12
Aide-assistant	140, 000	5
Total	761, 000	27

Doctors, lawyers, engineers, and others who qualify in their respective disciplines for the label are professionals. The term "administrative-technical" is used for occupations other than professional normally filled by persons having college degrees. In the "aide-assistant" category are employees in jobs which normally require extensive training and education beyond the high school level, but not college—such as engineering technicians, medical technicians, and research assistants.

After examination of some general training problems and solutions, a look into some particular problems that apply to specific fields will follow.

Transition

A young person who decides to become a professional or a scientist often does so because he wants to become like some person he knows or has read about. He wants, as Ohm did, to discover a law about electricity and have it named after him. He wants to be a Burbank who created new plant life. He wants to construct new building forms that will surpass those of Frank Lloyd Wright. His reading and aspirations focus on individual achievement and fame. As he works toward an advanced degree, his academic advisers require him to make a personal

and unique contribution to his field without help from others.

Then, after 10 years of nurturing his talents and skills, he enters the world of work. In industry or Government, his specialist leaders tell him to "get on the team." They tell him what to do and when and how to do it. They check his desire to explore little byways that might excite his intellect.

Some new graduates soon subside into apathetic acceptance, some escape into universities or consultant firms or private practice, and some become obstructive and uncooperative. Others, however, apply their individual creativity to the organization's work and multiply their skills and knowledges through use of the tremendous resources of the organization's apparatus. Government needs more of these. To get them, Government needs training which will turn young individualists into men and women who believe sincerely that they can attain their own goals through pursuing the organization's goals.

Need for Early Orientation

A primary need of Federal agencies for their new professionals and scientists, then, is a training program which gentles able young "colts" to the organizational bridle without breaking their spirits. Few reports described deliberately planned orientation programs designed specifically for this purpose.

The First Supervisor-Manager Team

A young professional's first supervisor-manager team is the catalyst which together can either spark an acceptable reaction to organizational life or, on the other hand, dampen ardor and smother creative impulses.

An agency's orientation planning, therefore, should include identifying supervisor-management teams who can kindle interest in the problems the organization must solve, deepen respect for scientific method, trigger normal desire for identification with a group of competent professionals, and begin building keen interest in self development.

This thinking has an element in it which the Task Force has not seen specifically expressed elsewhere. Task Force members did see and hear about programs which recognize the importance of a new professional's first supervisor. Data from social science studies, however, indicate that the supervisor's boss is also vital to the formula for speedy and effective orientation. A manager-professional in

such a team creates a supportive climate, provides a broader outlook, and reinforces learning experiences.

Formal Orientation

Well-run orientation classes can supplement but certainly not replace the supervisor-manager team. The data is not too clear on this point, but there is reason to believe that many agencies would do well to review their programs for orientation of professionals. The Task Force has no objection to programs which provide needed information about leave, pay, insurance, retirement, organizational structure, and the like. It urges, however, that agencies consider what they want formal orientation to do and then set about designing a program to do it.

The Task Force believes that a sound, formal orientation program should:

- Emphasize the special nature of public service: its ethics, its relation to social programs, its relation to State and local government, and its impact on community life
- Take advantage of the fact that a new employee is open to change
- Make clear agency attitudes and programs supportive to professional self development and growth
- Communicate agency professional traditions, professional values and standards
- Interest new employees who show potential in preparing themselves for future leadership positions through both work experience and study
- Open the doors to different kinds of careers as specialist, manager, or a combination of the two
- Make clear how work will be evaluated and rewarded
- Enable a new employee to grasp the breadth of agency programs, their place in the Federal Government and their meaning and value to society

Recommendation

The Task Force recommends:

That agency heads review their orientation program for professionals, scientists, and administrative-technical employees to:

- (1) *Set clear goals;*
- (2) *Identify and assign newcomers for orienta-*

tion to supervisor-manager teams with outstanding training capacities; and

(3) Reorganize formal programs so that they will supplement on-the-job training and communicate occupational and Government standards and values.

Creating Journeymen Professionals

Once a professional is settled in his job, his supervisor-manager team should be bringing him as rapidly as possible to a journeyman capability. His mentors need to chart a course which avoids the twin dangers of dependency and rejection. The team should set for themselves goals for moving the trainee:

- From a state in which he looks to them for advice on self-development to one in which he can spot his own weaknesses and plan his own studies
- From dependence in planning and carrying out research or other professional activities to a state in which he and the bosses are interdependent; he, the doer, to share with them the setting of goals and targets
- From a need for daily guidance to self-discipline in meeting work schedules
- From an understanding of immediate problems and issues to an understanding of long-range agency needs and professional goals

Much of this will have to be done by the supervisor-manager team on the job through work assignments, coaching, and feedback on performance. However, in the process of doing these things, the team may find that an employee will grow faster if they can accelerate his learning of theory and concepts. In such cases, of course, the management team should have the authority and means to open training and education courses to the budding professional. The use of universities for this purpose is discussed in chapter eight.

Use of Senior Staff

In developing professional employees, the management team and the agency should make full use of senior staff. The Task Force was surprised at the great range of practice in agencies on this. Some agencies leave all instruction up to the journeyman level in the hands of supervisors who have had little or no help in becoming competent trainers. At the opposite and desirable end of the scale,

agencies assign each junior employee to work under close guidance from both a supervisor and a competent journeyman. They also organize courses taught by such journeymen or by professionals from even more advanced levels of competence.

Rotation

The military, the Foreign Service, the Internal Revenue Service, and a few other agencies have made good use of in-service training in which men and women are rotated through a variety of specialized jobs. Such experience can be especially useful in broadening a specialist who is a potential manager, but it has also been used for broadening professional knowledge and skill. The Task Force commends this practice to all agencies.

Need for Formal Training

A matter of some concern is the wide variation in the effectiveness with which agencies identify joint training needs and then develop formal courses for specialists. Methods for surveying of training needs are well known to competent employee development officers, and should be available to all agency officials. Although agencies reported that one of their major training needs is for courses designed to keep journeymen abreast of developments, the Task Force has less clear data as to how some agencies expect to do this effectively.

Recommendations

The Task Force recommends:

That heads of agencies create conditions for professional, scientific, and administrative employees where the need for self development is apparent, personal efforts are rewarded, study materials are readily accessible, and opportunities to use new knowledge, concepts, and skills are made available (repeated from chapter two);

That agency heads review their present in-service training for professionals, scientists, and administrative-technical employees to make sure that the more experienced and the most able are assigned to give needed training to others;

That agency heads establish systems for a continuing review of specialist training needs and for job rotation and in-service courses to meet most of these needs:

In-Agency Teaching Resources

The last recommendation may seem to deny the use of universities. Chapter eight will make clear that this is not the case. However, the Task Force has observed that agencies have tremendous resources in their present staffs. In many areas, Federal scientists are on the frontiers of knowledge—their writings and findings create the new theory and overthrow the old. In other areas, Federal attorneys, personnel officers, economists, fiscal officers, accountants, and many other specialists are recognized nationwide and even worldwide as outstanding in their knowledge of both theory and practice. Not all these men and women can teach, but many of them can or could with a little instruction in training methodology. If an agency head determines that he wants the best possible teachers for needed formal courses, he will certainly find many of them in his own agency. These employees are available, close by, and can be assigned readily to such instruction.

The recommendations on this point are aimed squarely at solving the training problems created by the tremendous diversity of Federal professional programs and the people who staff them. Each speciality produces its own experts who thereby become themselves training resources. Professions have always provided their own elevators to lift apprentices to journeymen and finally to masters. Federal agencies need to use effectively the lift that can be supplied by the best of their own staffs.

Renewal for Professionals

The hallmark of a master professional is continuing growth. Why, then, is so much heard about the dangerous age from 35 to 40 in which growth ceases? The complaint is the same in both industry and Government. Simple observation and a bit of psychology lead to the conclusion that the complaint reflects a real, not an imaginary, problem.

When a professional employee is young, almost every situation he encounters brings a new problem. He faces them all with a fresh, open mind. But each situation leaves in his mind precedents, rules of thumb, principles. The older he gets the more he uses old experience as the source of solutions to today's problems. Unfortunately, today's problems are often new ones and his old answers may be less than adequate. If he would search out new findings in his field, he would discover better answers.

But by the time some people are over 35, they are overcontent with old answers. This is a serious shortcoming in master professionals.

Master Professionals

Government needs hundreds of master professionals—eager to learn, eager to apply what they learn. Every bit of evidence we have makes us conclude that an organization must make strong, continuing and systematic effort to create this kind of eager learning.

What does Government need in a master professional? A master is first of all knowledgeable, deeply knowledgeable about his field. He is extraordinarily skilled in finding solutions to unusual problems. He is an agency resource, a consultant to others. As he grows, he often becomes a national or a world resource. He is creative, imaginative, and productive. He gives of himself to others. Psychologists say that he is motivated by a desire for self-fulfillment.

The suggestions presented up to now have been aimed at creating management teams which support self development and growth. But after men or women attain the master level, the organization must still take positive action to keep them growing. Much that has been said about creating a climate which supports self development applies to masters. However, the more formal training of these experienced people requires special care.

Long-Term Training for Master Professionals

Agencies and industries have experimented with different methods of long-term training for masters. Return to school as students is out of the question; these people write the texts. But return to school to teach or to participate in research with other masters, or to explore a library which has rare materials—these can be valuable growth opportunities. Some agencies send their masters to industrial or Federal or overseas laboratories that have way-out-in-front programs. A few agencies have obtained special legislation permitting them to exchange their employees with those of local governments, and use this as a means of stimulating further growth.

Determinations for Full-Time Training

There are principles or conclusions which are critical to the success of full-time and residential training:

- Not all masters have capacity for self-renewal but the best do
- Agency officials should therefore carefully select those who can benefit—seeking out those who have previously demonstrated growth, and avoiding duds
- Absence from jobs for long periods, over three months, has a marked impact on the individual; he is likely to return quite a different person. Agency officials must plan to deal with such change by assuring that:

(1) Full-time and residential training assignments should be granted only when the individual has clear growth goals and has identified places where this growth can be stimulated or renewed;

(2) A specific person of the same or preferably higher grade should be assigned to keep in touch with the individual while he is away from the job; reports of progress should be expected and news from the agency should be forwarded;

(3) A considerable time before the end of the training, correspondence or conversations should negotiate provisions for what the master will do on return—preferably a new job or new assignment;

(4) On return to work, the trainee should present to agency officials both a written report and an oral briefing on his training experience;

(5) The returning professional should be carefully oriented to his new job; if he stays in his old, new goals or assignments should be worked out with him.

The above list seems rather obvious. However, the Task Force did learn from interviews that most agencies are remarkably unsystematic about such long-term training for experienced professionals.

A report to the Task Force on 53 recipients of the Rockefeller Public Service Awards, some of whom were professionals, shows that 11 are now in universities, 6 in foundations and similar organizations, and 5 in business or industry—a loss of 40 percent. This rate of loss certainly indicates that agencies should recheck the results of their experience with long-term training. If they have a high loss rate, they should not discontinue long-term training but instead find ways of reducing the loss from it.

Recommendation

The Task Force, therefore, recommends:

That agency heads establish a sound system for selecting the best of experienced professionals for assignment to full-time and residential training which will supplement their self-development; for setting objectives for such training; for maintaining relationships with the trainee while away from the job; for orienting the trainee back to work, preferably in some new assignment; and for evaluating agency experience with such training.

Need for Regular Reviews

One more overall problem calls for consideration before moving to problems of specific fields. Agencies need to develop orderly systems for career advancement for their professionals. Agency officials need to establish clear standards for advancement and insist that the standards be met before promotion is granted.

Some agencies have established clearcut standards for journeyman performance and require a review of a professional's performance and stage of development before promotion to that level. The Task Force learned of one agency which has careful reviews of the work of experienced professionals by their peers, which can result in counseling sessions to stimulate more self development or in reassignments or promotions.

An agency may wish to give wide latitude in such reviews to the first-level supervisors of professionals. However, the organization as a whole needs to be represented at important stages of advancement. Agencies are therefore urged to introduce divisional or bureau reviews at two or three career stages. If peer groups are not used for assessment, then other means should be provided which foster the creation and acceptance of high professional standards of performance.

Recommendations

The Task Force recommends:

That agency heads create systems which will identify marginal producers among their professional, scientific, and administrative-technical employees, and provide them counseling, training, education, or reassignments;

That agency heads provide standards for advancement to important career stages and establish review systems which advance only professionals of excellence.

Because reports indicated inadequacies in professional training in small units or at isolated units, the Task Force further recommends:

That agency heads make certain that developmental opportunities, training and education are available to professional, administrative, and technical employees who work at remote locations, in small groups, or alone (repeated from chapter five).

Technicians

Technicians differ from skilled craftsmen in that they have greater knowledge of professional or scientific methods and some grasp of basic theory. They differ from professionals in less grasp of theory, narrower understanding of tool subjects such as mathematics, and greater skill in manipulation of instruments, jigs, machines, and the like. In a laboratory, a technician may carry out tests according to a professional's specifications, he may set up, calibrate, and operate measuring devices, he may record data and perform prescribed mathematical calculations.

Upgrading Technicians

Many observers see in technicians a potent means of alleviating the continuing shortage of professionals. Agency officials can shred out routine and less demanding work from the tasks of professionals and assign it to technicians, thereby reducing the number of professionals needed and making better use of the capacities of those who are available.

Recruiting

Although the Task Force is concerned primarily with post-entry training of Federal employees, it cannot ignore the shortage of trained technicians. The Bureau of Labor Statistics has estimated that Government and industry will be able in the coming 5 to 10 years to meet less than half of their recruiting needs from persons trained in technical institutes, junior colleges, community colleges, and technical schools. This means that Federal agencies, while recruiting from these schools' graduates, must at the same time plan on finding among high school graduates and its own employees in lower paid jobs a sizable number of persons with the ability to be trained and upgraded to technician positions. The ratios will vary with the different specialties.

Recommendations

The Task Force recommends:

That the Commissioner of Education look into technician training and take steps to:

- (1) Improve the quality of pre-entry training of technicians;*
- (2) Provide more adequate facilities and equipment in technical training institutions; and*
- (3) Attract greater numbers of trainees to areas of greatest technician shortages.*

That heads of professional and scientific programs make manpower studies to determine how much routine professional work can be transferred to technicians, how many less professionals and how many more technicians this would require, and to make 5-year projections of both the need for technicians and the probable supply;

That heads of such programs review their recruiting and training programs for technicians, plan what training is needed for the kinds of recruits they are likely to obtain and at what levels, and then make sure that needed training is provided at the time it is needed;

That heads of agencies establish systems whereby:

- (1) The opportunities for upgrading to technician jobs are effectively communicated to employees and to employee organizations;*
- (2) Those who express interest are ranked as to their potential for such assignments; and*
- (3) The best of these are trained for the jobs.*

Different Levels—Different Training

Agency heads should be prepared to establish training for new technicians at two or even more quite different levels. Training for that half who will come from high school or from their own file clerks, assistants, and helpers is going to be longer in duration and much more extensive in coverage. Training to orient graduates of good technical schools will be much shorter and probably directed more at agency procedures, methods, and resources.

From the check made of existing training programs, the task force suggests that heads of programs employing technicians should order an immediate review of their current teaching materials used in upgrading technicians and in supplementing their self development. New training materials, some in the form of programmed instruction, are rapidly becoming available.

More Motivation for Technicians

After the technician is initially trained and performing his job competently, little seems to be done for him unless his job is affected by new technology, new machines, or new methods and he must be retrained to avoid being displaced. The impression is strong that technicians are too often ignored when the training pie is cut.

One paper prepared for the Task Force reported that technicians feel unhappy about their lack of status in their organizations. Another paper, published in 1962, stresses the importance of recognizing the dignity of the technician and the worth of his work. There is enough evidence to support a conviction that the situation deserves, even demands, a special study to recommend what should be done for whom and when.

As of this moment, the Task Force urges that heads of professional programs take some important steps:

- Make sure that supervisors of technicians, including very definitely those who are professionals, are trained in modern theories of leadership and that their superiors take steps to see to it that these supervisors apply such theories in their daily work;
- Make plans well in advance of technological or other changes affecting technicians in order to retrain them before their present skills become obsolete;
- With assistance from the Civil Service Commission, look for savings and better instruction that could be obtained through inter-agency training in Washington and the field, designate agencies to sponsor such training, and cooperate in conducting needed courses;
- Unite technicians and the professionals with whom they work into a well-knit, effective system.

Status for Technicians

The problem of status is not going to be settled by more money or higher grades. Each agency needs to develop supervisors, managers, and personnel officials who together create real status for technicians. System training seems clearly called for here. Working together, the three groups must learn how to make the tasks of technicians more important in the organization, how to make technicians and professionals more interdependent (and technicians less dependent and passive), how to

bring professionals to recognize and reward technicians for their knowledge, skills, and abilities.

Continuing Training for Technicians

Lastly, managers of programs employing technicians should look into the training needs of technicians over a considerable time span. Too often, the assumption seems to be that technicians need only initial training and retraining when obsolescence threatens. Some technical fields are so complex, such as engineering drafting, and some are evolving so fast, such as computer technology, as to require continuing training for technicians.

Further Professional Training Needs

To illustrate problems in professional development, the Task Force turns here to two occupational groups: attorneys and economists.

Law

The Civil Service Commission reports that the Government employs 9,060 attorneys. This is the largest professional group for which no single, well-rounded career development and training program could be located. Thousands of attorneys, although they are not members of Government's formal merit system, spend their working lives in Federal employment. They are covered by the Government Employees Training Act, just as thousands of other employees are. Clearly, attorneys need developmental opportunities, training and education during all stages of their careers. Interviews by Task Force representatives and their subsequent reports indicate that there is a small but growing group of attorneys who agree.

Attorneys are essential Federal employees. They represent the public in cases involving millions of dollars and thousands of people. In court they face highly paid competition. A man in private practice may make as much on one case as his Government opponent earns in a year. They fight for civil rights, defend the Government against unjust claims, prosecute criminals, negotiate contracts for defense activities, conduct labor litigation, and anticipate the jurisprudence of space exploration.

Merits of Continuing Training

Attorneys are then vital to Government. Is it possible that once they have been admitted to the

bar, their learning need come only from daily practice? The Task Force rejects this out of hand. Attorneys work at many different grade levels. Training is needed all along the way, to accelerate and expand the growth of young attorneys and to continue development of the senior ones. But the most cogent argument supporting continuing training for Federal attorneys is the broad scope of their jobs.

Competence in law comes from a knowledge not only of cases and precedents; it calls for:

- Understanding of the philosophy of law
- A feeling for the sweep of history and the changes in American institutions
- A knowledge of the subject-matter field in which the individual attorney practices (engineering, space, civil rights, etc.)
- Ability to reason and to marshal arguments
- Understanding of Government and legislative processes
- Understanding of public pressures, clientele groups, and political action
- Ability to guide American law toward the changing needs of our society

All that has been said about and recommended for professional training applies to attorneys, including self development, on-the-job training and agency support of training and education. An encouraging note in this field is found in the American Bar Association's leadership in developing educational programs.

Recommendations

The Task Force recommends:

That the Department of Justice and the Civil Service Commission explore means by which interagency training can be established and offered for attorneys;

That the General Counsels seek advice and assistance from their professional societies, personnel officers, and the Civil Service Commission in establishing agency programs of career advancement, training, and education for attorneys.

Economists

Economists also illustrate well some of the problems of training and educating professionals. Government employs about 3,700 of them.

Economists apply their skills to the analysis of the many forces affecting the economy. They are studying money and money markets, credit instru-

ments and systems, banking processes and institutions, capitalization, and investment. They anticipate what will happen as a result of changes in Government taxing, borrowing, and spending. Some are concerned with theories and principles which examine the role of labor in the economic process: the demand, supply, use and pay of labor as factors in production. Some analyze the economy of a particular region of the United States, others are concerned with particular industries and still others with the interplay of economic forces between nations. They may be primarily engaged in research. Some may be advisers to top-level Government decision makers. Others are involved in gathering, interpreting, and publishing economic data.

Merits of Continuing Training

A sampling of a bureau employing 500 economists showed that a majority had advanced degrees and a third had doctorates. Most economists in most bureaus in Government are well educated. However, much of what is learned today in economics is soon outdated or refined. Economists need to study constantly in order to keep abreast of changing economic theories, new concepts of model construction, and the development of new statistical techniques, among other things.

All that has been said about training professionals, their self development, their supervision, and the support by the agency of their training and education, applies with special force to economists. However, some bureaus have almost no training activities, a number make funds available to support evening courses or short-term seminars, but few support full-time or residential training. Only one Department reported a fairly clearcut program of career advancement for economists which puts into effect the principles and concepts that the Task Force has been urging on agencies.

A report to the Task Force estimates that if agencies put 3 percent of their economist salaries into training for the upper quarter of their economists, the minimum benefit should be more than 15 percent and would probably average around 25 percent in increased productivity.

Recommendations

The Task Force recommends:

That the Civil Service Commission, together with representatives from appropriate agencies,

explore means by which interagency training can be established and offered for economists;

That executives in charge of programs employing economists seek advice and assistance from university scholars, personnel officers, and the Civil Service Commission in establishing agency programs of career advancement, training, and education for economists.

Other Specialties

Exploration of other occupation groups by the Task Force shows that some, especially in the hard sciences and medicine, have sophisticated and effective training programs. However, those with haphazard or ineffectual programs should tighten them.

Planning Ahead for Specialists

Chapter four reviewed projections made for the Task Force by the Bureau of Labor Statistics in connection with change—in Government programs, occupational requirements, and technology. Agency heads in charge of affected organizations should initiate plans for new and expanded Government programs; should make certain what must be done to continue or broaden present and future efforts to train and educate professional, administrative, and technical employees for expanding programs in such areas as:

Education	Natural resources
Housing	Water and air
Social security	pollution
Community	Commerce and
development	transportation
Anti-poverty programs	

Agency heads in programs which are affected by swift technological changes need to make certain what should be done to continue or expand their present efforts to provide training and education for professional, administrative, and technical employees whose work will be affected in the fields of:

Communications	Computers
Health	Natural sciences and
Information retrieval	engineering
Construction	

Evaluation

In designing these programs, managers and employee development officers should set clear-cut

goals and build in evaluation systems which will test the extent to which the training and education hit the targets. More on evaluation will be presented in chapter nine.

Conclusion

Specialization goes back hundreds of years but modern times have created organizations which multiply its values a hundredfold. Agency-provided training and education is one of the most potent of the multipliers. To take advantage of this power, managers and executives must make

sure that professional, administrative, and technical specialists continually:

- Increase their knowledge and skills
- Put new technology to work for Government
- Communicate clearly their findings to management
- Understand thoroughly management goals and needs
- Search other fields for concepts applicable to their own
- Integrate their specialty into the agency program
- Understand the social perspectives of Government

Interagency Training

Most of the training for professional, administrative, and technical employees is given by an agency using its own facilities. Prior to 1958, only defense agencies and a few others could send employees to universities and other non-Government institutions for training and only one agency could legally open its training facilities to employees of another. The Government Employees Training Act changed all that. In the next chapter, the Task Force will look at training in universities and technical schools; in this chapter, at interagency training.

A New Venture

A major aim in any sound organization is directing the labors of many individuals toward common goals. Such individuals must identify with the organization, develop loyalty to it, and seek to promote its ends. The problem is that people tend to identify strongly with their own work group, and less strongly with each successively larger part of the whole. It is not surprising then, that the Federal Government at times needs special effort and leadership to create and operate programs which cut across agency and bureau lines.

The Civil Service Commission is the source of the special effort and leadership that brought into being a whole new Government-wide procedure to help employees broaden their identification with Federal service—the interagency training program. To accomplish this, the Commission:

- Established and conducted training courses for other agencies;
- Encouraged a number of agencies to admit to their courses employees from other agencies;

- Developed and periodically published a catalog of interagency courses; and
- Promulgated policies to coordinate such training and to avoid duplication of effort.

65,000 Trainees

Of the 57 agencies replying to Task Force questionnaires, 56 indicated that they had sent employees to interagency training courses. In 1966, 65,000 employees went to such courses in 25 different agencies. However, 94 percent of this training was provided by only six agencies: Civil Service Commission, General Services Administration, Army, Labor, State, and Health, Education, and Welfare. The first two provided 60 percent of the service. While the data show a healthy growth since 1959, reports to the Task Force indicate problems in two areas: (1) some reluctance to provide training to employees from other organizations, (2) some difficulty in getting employees from different agencies together for training in remote locations.

The fact that 32 out of the 57 reporting agencies did not share their courses with others is some indication of parochialism, but even more striking to us is the fact that 94 percent of interagency courses were given by only six agencies. The Task Force concludes that the opportunities for interagency training need to be more fully exploited.

Professionals and Technicians

The need for interagency training for professionals and technicians is reported in chapter six. The Commission catalog of interagency training for 1966 shows that the courses offered for employees in professional, administrative, and technical occupations break down in this way:

Interagency courses

Category	Number of courses	Percent of total
Management.....	1, 024	54
Professional.....	47	2
Administrative-technical.....	333	18
Aide-assistant (technicians).....	316	17
Other.....	168	9
Total.....	1, 888	100

The quantity of interagency courses offered professionals is not in proportion to their numbers. Most of the courses given administrative-technical employees are in the field of personnel administration. With more of the creative effort and skilled leadership that brought interagency training into being, additional interagency training programs can be developed.

Field Activities

The Task Force's concern about the lack of training for employees located in small units, especially those in units of 200 or less outside of Washington, was made clear in chapters five and six. Government has 1,000 or more employees in each of 153 metropolitan areas. Cooperation and pooling of resources by agencies in these cities could produce better training for professional, administrative, and technical employees at a lower cost than most agencies can provide for themselves.

The Task Force did not collect data on interagency training overseas. As there are about 138,000 Federal employees working in other countries, in addition to those employed by the Department of State, the Task Force suggests that the Civil Service Commission seek to extend agency sharing of courses to employees overseas.

Need for New Courses

Some agencies have functions cutting across all or a major part of other agencies' operations. Only five of these offer interagency training primarily for other agencies: Civil Service Commission, General Services Administration, Labor, Government Printing Office, and the Bureau of the Budget. The Task Force suggests that more agencies should provide such service.

Typical functions performed in more than one agency are automatic data processing, investigations, and civil rights. The Great Society programs, for example, affect the work of the Office of Economic Opportunity, the Departments of Agriculture, Defense, Health, Education, and Welfare, Justice, Labor, and 14 other agencies. Cooperation and pooling of resources for training in functional areas could produce better training for professional, administrative, and technical employees at a lower cost than most agencies can provide for themselves. In addition, such pooling could produce—

- A team approach to national programs
- Comparable procedures for clientele who must deal with more than one agency
- A sharing of superior techniques for providing Government services
- A sharing of information, methods and techniques across agency lines
- A reduction in duplication of training efforts

Executive Order 10800

Executive Order 10800 directs the heads of agencies to "utilize the training facilities and services of other departments to the extent practicable, provide training facilities and services to other departments when practical and without interference with the department's mission, and cooperate in the development of interdepartmental employee training activities."

Recommendation

Now that interagency training programs have demonstrated their value, the Task Force is of the opinion that this policy needs to be modified to change the emphasis. Therefore the Task Force recommends:

That the President provide that agencies shall share their training facilities and cooperate in interagency training whenever this will result in savings for Government or produce better service to the public.

Task Force members are agreed that interagency training programs provide Government a valuable new training resource which should be continued and expanded in the future. An agency should look to interagency training when:

- Another agency is better qualified to provide a needed training course or program because it has more expertise, experience, and competent

instructors, and better available training materials, equipment, facilities or other resources;

- Sharing by a group of agencies in a course or program can provide training more economically or more effectively; and
- Sharing by a group of agencies will permit them to provide more specialized training of a higher quality than any one of them can alone provide.

Recommendations

Action is needed to get an improved interagency training program underway. The Task Force recommends:

That agency heads open their training programs to employees from other agencies;

That agency heads cooperate with each other and with the Civil Service Commission in continuing and expanding interagency programs;

That the Civil Service Commission identify major functional areas in which new or additional interagency training is needed;

That the Commission negotiate with the agency having prime responsibility for a function either to provide that training or to provide advice on course content; and

That the Commission take steps to have such courses set up and conducted as often as needed and in convenient locations in Washington, in the field, and overseas.

Training Centers

Reports to the Task Force show that 17 Federal agencies operate 49 training centers. Of these, 26 opened their courses to employees of other agencies; 13 made limited training spaces available.

The Civil Service Commission operates two Executive Seminar Centers, and general centers in Washington and 10 regional offices. All were established specifically to provide interagency training. The seminars at Berkeley, California, and Kings Point, New York, and a proposed residential center for career executives are discussed in chapter five.

Recommendation

As agency training centers might profitably be explored to see if they are potential sources of additional interagency training, the Task Force recommends:

That the Civil Service Commission inventory agency training centers and make their programs known to all agencies.

Interagency Exchange of Employees

Stressed throughout this Report are the importance and value of on-the-job instruction. The National Bureau of Standards and a few other units have accepted employees from other agencies to participate in experiments and do other useful work. Checks show that both trainees and trainers have benefited. The Task Force urges agencies to look into the possibility of extending this kind of experience to more fields. Interagency training through on-the-job experience is eminently desirable.

Cost Sharing

A simple phrase in the Government Employees Training Act proved to be the mechanism that made interagency training possible in the Civil Service Commission. It authorized one agency to reimburse another for training services. From an accounting point of view, this produced a quite desirable result—the costs of training were allocated to the service or function that benefited. This is also consistent with the Government's planning, programming, and budgeting system (PPBS) which is discussed further in chapter nine.

Reimbursement, from the Commission's point of view, has other desirable features. It permits rapid response to a training need which develops on short notice. Thus, when the President directed agencies to install PPBS, the Commission was able to develop and offer PPBS courses within weeks of the announcement.

Billing

The Department of State and the Civil Service Commission charge for most of the interagency training they offer. Should other agencies make similar charges? The Task Force thinks that the answer must be found in common sense. An agency which seldom gives a course, and accepts but one or two other-agency employees, would find that the costs of billing and collecting hardly justify the effort. If an agency provides a course for its own staff and the addition of other-agency employees raises its expenses by little or nothing, it has little reason to charge. The Task Force takes the position that where the costs are significant, agencies should ask for reimbursement in order that the charges to operations reflect training expenses correctly.

The Task Force received suggestions from agencies that the reimbursement billing procedures could and should be simplified and is passing these on to the Civil Service Commission for study and action.

Recommendation

The Task Force recommends:

That agency heads establish a policy which calls for reimbursement for their training services to other agencies.

Fiscal Problems

Reports to the Task Force show that the cost per hour for interagency training is lower than such costs for training in non-Government facilities. As some data on outside training were beyond the scope of this study, the figures are not reported here. The Task Force, therefore, urges agency officials to put into their budget requests funds for interagency training (1) for programs which they will conduct for themselves and others, and (2) for programs offered in other agencies to which they will send their employees.

In chapter nine, this Report presents more on budgeting. The important thing is that program specialists and officials responsible for agency budgets allow time and money for this cost-saving type of instruction.

A recurring theme in the reports received from agencies was that Federal fiscal procedures make difficult the purchase of teaching machines, overhead projectors, loudspeakers, and other equipment which must be charged as capital funds rather than to current expenses. When this fiscal situation is complicated by cost sharing, it becomes indeed a troublesome question.

The Task Force suggests that the Civil Service Commission explore this problem with the appro-

priate fiscal officers to determine how training programs can best be provided with adequate instructional equipment. At the same time the Commission should look into problems of renting space for training.

Conclusion

Interagency training is the major innovation in recent years in Federal career development. It has resulted in the establishment of two fine Executive Seminar Centers, one at Kings Point, New York, and the other at Berkeley, California. It will provide the sinews for the residential center for training top-level career executives which the Task Force recommended in chapter five.

The benefits of cost-shared training deserve more attention from agency executives. It permits courses to be given more frequently in more convenient locations with more skilled instructors. The pooled funds can be used by the host to produce better courses now and in the future for his agency and others.

Most importantly, interagency training directly serves the interests of the President. It does this by cutting costs and improving the quality of training. It is a major assist to the President in bringing civil servants to:

- A broader view of Government;
- A better understanding of the work of other agencies; and
- A reduction, hopefully, in the provincialism of specialization.

Chapter Eight

Education

As the population becomes better educated, the relationships between employers and educators change. The continuing dialogue between the two has raised hiring standards and packed ever more content into curricula. The tendency for young Americans to lengthen the time they spend in studies is shown dramatically below:

Education of Americans

Year	Number high school graduates	Ratio: High school graduates to total 17-year-olds	Number college graduates	Ratio: College graduates to total 22-year-olds
1900.....	94,883	6.4	27,410	N.A.
1920.....	311,266	16.8	48,662	2.6
1940.....	1,221,475	50.8	125,856	5.5
1950.....	1,199,700	59.0	432,058	12.4
1960.....	1,864,000	65.1	392,440	18.1
1964.....	2,290,000	76.3	498,654	N.A.

N.A.=Not available.

Source: Bureau of Labor Statistics.

The United States has gone from a nation in which the average job applicant before World War I had but a fifth grade education to one in which a typical applicant today has a high school education or more. Employers and educators agree on the basics that the educational system should provide: arithmetic, reading, mathematics, social studies, physical chemistry, engineering, and other core subjects. They do not altogether agree on what kind of vocational training high schools should provide or how much job training a college should provide. The mean lies somewhere between those who want schools to prepare students for specific jobs in specific industries and those who want schools to prepare students for a changing world in which a prime need is to learn how to learn.

University Relationships

The Task Force takes a pragmatic approach. It suggests that relationships with universities should be determined by such factors as:

- The training and education employees need
- What training universities can do best, both now and in the future
- What training Government agencies can do best

Universities today can turn out students ably trained in broad academic disciplines: physics, sociology, electronics engineering, astronomy, languages, medicine, political science. From Bureau of Labor Statistics projections, it seems likely that they will be hard-pressed to provide the faculty and facilities they need to meet the rising demand for education.

Earned degrees

[Bureau of Labor statistics projections]

Degree	1965	1975	Increase, percent
Bachelor.....	539,000	906,000	68
Master.....	112,000	205,000	83
Doctor.....	16,500	32,000	94

The changes in specific fields will vary widely. Bachelor degrees in agriculture for example, are expected to decrease. Bachelor degrees in mathematics will probably increase by 200 percent.

Government Experience for Faculty Members

The Task Force is of the opinion that industry and Government should do all that can be done in this period of expansion to help universities meet their needs for faculty members. Government

can help develop faculty members and at the same time provide itself a fine resource.

The Civil Service Commission has authorized agencies to give temporary limited appointments up to one year to bona fide faculty from accredited colleges. They may be placed in scientific, professional, analytical, employee development or instructional positions. The advantages to Government are clear. Bringing well-educated new blood into the service would stimulate vigor. The return of faculty members to the campus with solid Federal experience and good agency contacts should certainly provide outstanding students a counseling source about Government work.

The advantages to the universities emerge from the training, mind-stretching opportunity such appointments offer their faculty members. Government should, however, give university officials assurance that these trainees will be returned to the campus and not recruited into the career service.

The Task Force suggests that agency executives and managers hire more college faculty members for one or two semesters, to meet their own agency needs, and to provide such faculty members with useful Federal experience.

Federal Employees in University Courses

The Government has been using universities as a training resource. Since the passage of the Government Employees Training Act of 1958, the number of Federal civilian employees taking university courses has increased rapidly. Reports from agencies show that over 80,000 received support in such courses in fiscal year 1966. Agencies reported that about 20,000 took courses on their own. It is likely that some employees did not report their nighttime study.

Employees taking university courses

[Fiscal year 1966]

Category	Number employees	Percent of all employees in this category
Professional	52, 641	19
Administrative-technical	32, 937	9
Aide-assistant	14, 876	11
Total	100, 454	13

Agency support for university courses

[Fiscal year 1966]

	Number employees	Percent
During work hours, full support . . .	29, 755	37
Employees' time, full support	26, 899	33
Employees' time, partial support . . .	14, 403	18
During work hours, employees' expense	9, 501	12
During work hours, partial support . . .	134
Total	80, 692	100

According to agency estimates, the Federal Government spent more than \$26 million on non-Government training for civilian employees in fiscal year 1966. Reports as now collected summarize, but do not specifically separate the amount paid universities from that going to private firms, professional societies, and other non-Government organizations. If existing trends continue, Government will spend even more in coming years.

Agency Policies and Practices

There is no consistent pattern for agency use of university education and training. Some agencies provide financial support to a professional or scientific employee who wants to take a course, if the course is directly or indirectly related to his present or possible future work assignments. Others seldom provide any support at all, or will provide support only when the employee wants to take a course which relates specifically to his present work.

Some agencies try to avoid sponsoring employees for any courses which could be used for degree purposes. Others see advantages in such courses in some cases. Several hundred carefully selected employees are sponsored annually for residential training which often leads to an advanced degree. There will be more than 1,000 residential trainees in fiscal year 1967; practically all of them will be sponsored by 10 agencies.

Excepting arrangements for residential training, reports to the Task Force fail to show that agencies make systematic plans to insure that Government-sponsored university training is used to meet specific, predetermined agency needs. Much of what is done seems based on the assumption that a general raising of employee educational qualifications is

necessary and will be of benefit to the Federal Government now or in the future.

Need for Policies

The Task Force suggests that agency officials need to review their present practices and establish new policies to govern payment for university education. These policies should take into account that universities are best suited to provide:

- (1) Basic education and knowledge of academic disciplines
- (2) Preparation for professional careers
- (3) Knowledge and concepts about our society as a whole
- (4) Horizon-stretching courses for selected, experienced, career officers who need to broaden their politico-cultural understanding

However, the policies should also take into account that Government is best suited to provide training and education:

- (1) In specializations dealing intensively with specific applications of theory and practice to Government programs
- (2) In techniques closely related to work performance
- (3) On agency policies, programs, and procedures
- (4) On Federal administrative techniques and procedures
- (5) On Federal policies and procedures (such as Federal personnel administration)
- (6) In fields not commonly found in universities
- (7) In frontier areas where the agency is the prime source of knowledge (such as space technology)

Recommendations

The Task Force recommends:

That the President enunciate a policy that agencies shall use Federal facilities for training whenever this will result in savings for Government or produce better results at lower costs;

That the President direct agency heads to analyze and clarify policies for support of employee training and education:

- (1) *To distinguish more clearly between education and training which should be Government conducted and that which should be provided in universities, and*

- (2) *To make certain that such training and education supports agency mission and its management needs.*

Undergraduate Education

The Task Force is of the opinion that Government should distinguish clearly between its role as an employer and its social role in support of education. As an employer, Government should, as industry and business do, employ professionals and administrative-technical employees who are college graduates. The universities will turn out more and more graduates in the next 10 years. Government has shown its ability to attract thousands of students to its jobs through the Federal Service Entrance Examination and other examinations.

When it hires a person of college caliber who lacks a college degree, Government as an employer should make up this deficiency only in unusual circumstances. In most cases, a person who wants and needs support for his undergraduate work should compete for scholarships and loans on equal terms with other citizens.

Government in its social role should not discriminate either for or against its employees. There are, however, certain limited circumstances in which agencies can support undergraduate education with practical value to themselves. Among them are such situations as these, which management may encounter:

- A college graduate who needs a technical course which will improve his job performance;
- An employee with a degree in one discipline who is working in a multi-discipline occupation; or
- A disadvantaged person from a minority group who needs to improve his career potential.

Recommendation

The Task Force recommends:

That the President direct agency heads to establish a policy which makes clear:

- (1) *That except in special cases, employees are to obtain undergraduate education at their own expense or through scholarships and loans; and*
- (2) *The limited circumstances in which employees may be supported at agency expense in undergraduate courses.*

Once this policy is established, Government in its social role must make certain that its employees do, in fact, have equal opportunity for undergraduate education.

The Task Force reviewed proposed legislation which would permit persons who receive loans under the National Defense Education Act to have half those loans forgiven when they entered State or other local government service. This principle should apply also to those who enter the Federal service.

Recommendation

The Task Force recommends:

That the Secretary of Health, Education, and Welfare make sure that if educational loans are to be forgiven in whole or in part for those who enter the public service that such action apply to those who enter the Federal service.

Graduate Education

Federal agencies should use scarce training funds for graduate education and Government-sponsored courses which are properly given after entry into the service, rather than for undergraduate courses. The amount of support now given by agencies varies greatly. Task Force studies show that the smaller the agency, the less the degree of support given for university courses. Eight out of 19 agencies with fewer than 2,000 employees and three out of 17 agencies with 2,000 to 10,000 employees provided little or no support for university study.

The Task Force lacks data on the numbers of professional and administrative employees by collegiate degrees, as many agencies could not supply us such information without a special count. One study indicated that a small minority of professional employees at the GS-13 level have doctorates and not more than one-quarter have a graduate degree. Of course, there is considerable variation in the percentage of Ph.D.'s among academic disciplines. Administrative-technical employees probably have even less graduate education. The potential number of candidates for graduate courses among the 621,000 professional and administrative-technical employees is, then, large.

The Government should encourage professional and administrative employees to take graduate work but financing all who want such study may not be feasible.

Stretching the Training Dollar

Agency heads should find ways of making limited funds for graduate training open educational doors to as many employees as possible. Agencies now provide full support during working hours to only 37 percent of employees in university courses and others go on their own time or with partial support. This points the way. Agencies can stretch the training dollar by sharing the costs of graduate education with their employees. The Task Force has some evidence that employees who take courses with partial financial support often get greater personal satisfaction from tangible investment in their own growth. They are more willing to go ahead on their own to get master's degrees or doctorates. One agency took advantage of this by offering full tuition for half the evening courses their employees took.

Recommendations

The Task Force recommends:

That agency heads establish policies on graduate education which make clear:

- (1) To professional and administrative employees the vital need for graduate education;*
- (2) To managers and executives the importance of budgeting for reasonable and adequate support of graduate education; and*
- (3) To both groups that graduate education is to be awarded competitively within budgeted funds in order of its potential contribution to agency mission.*

That agency heads direct executives to stretch the funds available for graduate education to reach as many professional and administrative employees as possible through having employees share its costs.

Competition for Graduate Education

Two factors must be considered for the assignment of an employee to graduate education: the potential worth of the course content to agency mission, both present and future; and the potential capacity of the individual to benefit from it.

Someone should act for the agency head to determine what percentage of the budget for graduate education will be allotted to:

- (1) Those needing courses closely related to their present assignments;*
- (2) Those needing courses related to future assignments;*

(3) Those who would perform better if they took courses to stretch their knowledge of theories, concepts, and general applications.

Once these basic determinations have been made, the Task Force suggests that employees be encouraged to apply for graduate education, and that the competition to determine the order of selection take into consideration these factors:

(1) The relative degree of employees' need for training;

(2) The relative potential of employees for advancement;

(3) The relative extent to which employees' knowledge, skills, attitudes, or performance are likely to be improved by training;

(4) The relative ability of employees to pass the training on to others upon return to the job;

(5) The relative length of time over which the department expects to benefit from improved knowledge, skills, attitudes, and performance and the degree of these benefits;

(6) The training and educational opportunities previously afforded employees under consideration; and

(7) The employees' interest in and efforts to improve their work.*

To this list the Task Force adds:

(8) The extent to which employees have demonstrated their interest in graduate education by taking courses at their own expense.

Full-Time and Residential Education

Agencies need policies that clarify when they will pay full costs of graduate training. The Task Force preference for shared costs in most circumstances should be clear from what has been presented in this chapter.

Government probably should cover most or a high percentage of the costs for full-time training of a semester or more, especially if it requires an employee to move away from his home. An example is a specialist who is moving to a managerial position and who needs broad training in management functions that a university is well equipped to provide. The costs of such education are usually beyond the reach of a Federal employee with a family.

This type of training is valuable and should always be granted competitively. It should be widely announced and candidates selected should be

* Adapted from the Federal Personnel Manual.

the most capable and busiest employees. Assignments to such education should be made only of the very best of those who have the capacity to represent the Government ably at a university.

Selecting University Facilities

Agency executives and managers should make sure when Government is to support education, part time or full time, that the staff, facilities, and course content of the institution selected will provide the needed instruction. The approving officer should consult master professionals or advanced administrative-technical employees on his own staff about the courses offered. If this does not satisfy him, he should consult others who are expert in the fields in which the training is to be given. He may find it helpful to check on the experience of other Federal agencies.

If an employee wishes to attend an institution having inadequate instructors, equipment, libraries, or other needed facilities, the executive should insist that the courses be taken on the employee's own time and at his expense.

If there is a choice among educational institutions, the officer should approve only those capable of providing a stimulating and useful learning experience. He should take into account:

- Competence of instruction
- Geographic accessibility
- Time that training is offered
- Comparative costs (tuition, travel, and other expenses)
- Advantages of diversity of education (using more than one institution)

Managers and executives should make sure that assignments following long-term training take advantage of the new learning and skills.

Professional Updating

The Task Force would like to recommend the use of university graduate schools for up-dating the experienced professional such as a physicist with a Ph.D. who has worked for Government for 10 years. To date, few schools have developed programs which are designed specifically to provide continuing education for these professionals. When they are put full time for a semester or more into courses suited to graduate students, the experienced professionals may not benefit sufficiently to repay the cost to Government.

Some schools have recently designed core curricula specially developed for and attended by mature specialists who are new to management. The Task Force would like to see universities explore such special curricula in other areas, but in view of the many pressures on them, hesitates to add to their burdens. Until universities can meet this need, Government must develop its own up-dating curricula in agency or interagency programs where research and teaching staff from universities would participate as appropriate.

Summary

To sum up, agencies should make more opportunities for university education available to more employees by:

- Utilizing shared-cost training
- Paying costs of education only when employees complete courses satisfactorily
- Assessing carefully those employees who apply to be reasonably sure of their capability to benefit from the courses they wish to take

As pointed out in chapter six, agencies should make painstaking followup with employees sent to courses full time for a semester or more. Management should keep in touch during the courses to determine what is being learned, and how the employee and the agency can best make use of it. Re-entry to the agency should be accordingly planned ahead, and orientation to a new job or new tasks provided.

Suggestions Versus Practice

The above suggestions are inconsistent with practice in some agencies where offers of graduate education are used as recruiting incentive. Nor are they consistent with agency recommendations to the Task Force that seek repeal of a provision in the Training Act which bars training solely for a degree.

The fine training opportunities in Government are attractive to recruits. Government should stress the developmental possibilities in its examination announcements and recruiting literature. However, the Task Force would like to see promises of university courses kept to a minimum. True, there are times when agencies may have to do this to compete in the open market. But education should be a shared investment by both the employee and Government. It should be sought by the employee because he sees it as benefiting him. It should be

supported at Federal expense only when it will help Government improve its public service.

Offers of education to recruits may not produce benefits to Government. Offers of degrees to employees are closely parallel. The degree does not itself improve an employee. To benefit Government, an employee must obtain knowledge and develop skill and use it to increase his performance.

That is what this chapter and in fact this Report is about—management's need to increase performance. The Task Force can not recommend that education be offered solely to obtain a degree but it heartily recommends that Government should support developmental opportunities which lead to improved performance.

A Special Problem

The Task Force has had, informally, two contradictory proposals. One, from a university source, suggested that Government pay higher-than-average fees for its employees, because the normal tuition does not cover the full cost of the instruction. The second proposal was that because Government is providing support to universities, a reduced fee should be charged for its employees.

It is the feeling of the Task Force that when Government sends an employee for education, accounts will be better kept on both sides if Government pays the same rates for its employees as are charged other students.

Federal agencies which seek to have special courses or programs inaugurated for their employees should pay the costs of development and installation. Agencies should expect and obtain reduced charges after initial, developmental costs have been fully covered.

Recommendations

The Task Force recommends:

That agency heads make clear that graduate courses should be granted competitively to employees who:

- (1) *Need education related to present or future job performance (and not solely to get a degree);*
- (2) *Are specialists needing broadening for future work assignments;*

That Government provide more training and education in agency facilities to up-date both specialists and specialist-leaders; that Government should seek to attack the causes of shortages when

professional, administrative, and technical recruits are in short supply and limit promises of educational courses as a recruiting incentive except where needed to compete;

That universities create new types of academic programs for the mid-career updating of Federal employees in administrative, professional, and scientific fields.

Off-Campus Centers

In numerous instances Federal agencies have brought the universities to their employees through the establishment of "off-campus study centers" at Federal installations. There are at least 120 centers in operation. The universities generally use space and utilities provided by the agencies, and in some cases receive administrative support from the agency personnel or training staff. Practically all employee-students at these centers receive financial support from their agencies for their educational endeavors. Professional staff members of the host organization frequently are employed by the universities as part-time faculty.

Obligated Service Agreements

Before an employee can be assigned to a university or other non-Federal educational institution under the Government Employees Training Act, he must agree in writing to continue in the employ of his agency at least three times the period of his training. Thus if an employee attends a university full time for 9 months, he is obligated to serve in Government 27 months. If he seeks voluntarily to leave Government before this period is over, he must repay the Government for the out-of-pocket expenses—that is, tuition, travel, books, and the like. He does not have to repay the salary he earned while attending school.

The Task Force suggests that the Civil Service Commission look into obligated service regulations to determine whether they need revision and updating. For example, the Task Force suggests that the Commission use its delegated authority to grant exceptions to the requirement that employees who move from one agency to another may be required to repay the costs of their education, to the same degree as though they were leaving Government. This is not consistent with the concept that movement of employees between agencies is a valuable means of broadening employees. The Commission

might also pay special attention to the provision calling for recovery from a man's estate of such costs.

Recommendation

The Task Force recommends:

That the Civil Service Commission modify the stringency of requirements for obligated service for:

- (1) Employees who move from one Federal agency to another; and*
- (2) Estates of deceased employees.*

Technical Education

Institutions for technical education have received considerable assistance from the Federal Government through the National Defense Education Act of 1958. In recognition of the growing importance of this type of education, the Vocational Education Act of 1963 made the support program a continuing one and provided for increased funds.

By 1966, a total of approximately 225,000 technical students were enrolled in an estimated 900 institutions, an increase of more than 200 percent since 1960. More than 130,000 of these students were employed persons taking courses to upgrade their skills. The balance, 95,000, were taking preparatory courses.

Training New Technicians

Federal officials should take positive steps to make good use of this growing resource. Working relationships should be established with appropriate, competent institutions to help them to prepare their students for employment in the Government. If this is to be done adequately, Federal officials should:

- Identify their recruiting needs for persons with preparatory technical training
- Assess skills, knowledge, attitudes and work habits that a technical training institution could and should provide students before employment
- Assist technical training institutions in a consultant capacity to design appropriate courses
- Make job openings known to students during and after attending such courses

Once such a relationship has been established, agencies may wish to use such institutions for preparatory training of unskilled Federal employees

who aspire to move up to technician jobs. Recommendations on technical education are given in chapter six.

Conclusions

As citizens become more and more educated and educational institutions teach more and more ad-

vanced subjects, the Federal recruiting, training, and education pattern must change to fit the new kinds of recruits and the new educational systems.

The Task Force urges all executives and managers to keep up with this dynamic situation and take advantage of it to insure a steadily improving service to the public.

Chapter Nine

Planning, Programming and Operating

So far, this Report has analyzed trenchant questions of policy and methodology—who should be trained, where the training should be conducted, and how. There remain obstinate problems in getting these things done. Policy and methodology steer programs. Administrative processes initiate and power them. This chapter reviews such processes as planning, programming, budgeting and operating programs of training and education.

Competition for Resources

All programs compete for the precious resources of men, money, and materials. Training and education compete with demands for additional professional employees, more technicians, more promotions, increased library funds, and bigger computers. Those who would support training face questions at two levels: (1) how much should they allot for training and education; and (2) what are the training priorities among organizations, occupations, and employees?

PPBS

The approach commonly taken is to identify training needs and to present these at budget time. But other operations have needs also. Those who ration the limited resources must estimate the contribution each recipient makes to the reaching of the agency's goals. So, fundamentally, the first order must be to set agency goals clearly, determine how those goals, both immediate and long range, can best be achieved, and identify the contribution of each operation including training and education, to goal achievement. With values established for the relative amounts of time and money to be allotted, then managers must determine the priority of needs in training and education. These steps are consistent with and part of Government's plan-

ning-programming-budgeting system, called PPBS. Initiated in the Department of Defense, it was extended to all departments by the President in 1965. Today and tomorrow, training and education must compete within the PPBS system for its share of resources.

Requirements of PPBS

The Bureau of the Budget has directed agencies to maintain a comprehensive multiyear program and financial plan which will be systematically brought up to date. To accomplish this, agencies must develop:

- (1) Specific data for top management relevant to broad decisions;
- (2) Concrete statements on objectives of agency programs;
- (3) Alternative objectives and alternative programs to meet them;
- (4) Evaluations of benefits of programs and comparisons of their costs;
- (5) Total estimates of program costs;
- (6) Multiyear reports on prospective program costs and accomplishments; and
- (7) Continuing, year-round review of program objectives and results.

Support for Training

PPBS hammers at multiyear planning, comprehensive programming, evaluation of results against accomplishments, and identification of all program costs. Department of Defense experience is that the system brings out sharply the need for training and produces top management support for fiscal plans which provide it. The Task Force, therefore, urges all civilian agencies to move aggressively to relate their training and education needs to the new system.

Recommendations

The Task Force recommends:

That agency heads make clear to their career and noncareer executives the importance of including programs for training and education in the planning-programming-budgeting system proposals which are presented to them for approval;

That the Civil Service Commission and the Bureau of the Budget work closely together in assisting agencies to relate their training and education programs to the planning-programming-budgeting system.

Program Objectives

PPBS starts with setting of program objectives; therefore training and education programs must start with such objectives. This will require a change both in thinking and procedures for many Federal agencies. The more progressive agencies now make training needs surveys—who needs what kind of training, what needs there are in common, what course schedule is needed, and how much it will cost. Too often this results in blurred focus on management's immediate and long-range objectives. In PPBS, agency officials must start with program objectives and then move to training needs surveys. For example:

- (1) Establish program objectives—
Goal: put man into space.
Subgoal: enable man to survive in space.
- (2) Planning—
For up to five years ahead, identify training needed for survival; review recruiting and assignment plans; analyze training needs of both new and experienced astronauts; estimate numbers of new recruits and experienced persons to be trained; obtain data on existing and needed training resources (people, books, institutions, equipment).
- (3) Programming—
Include in program memoranda data on costs and benefits for up to five years ahead, of alternative programs designed to provide training of different degrees of completeness, and for different numbers and kinds of participants at different times.
- (4) Budgeting—
Estimate up to five years ahead operating expenditures (time and salaries of trainees and instructors, costs of manuals,

etc.) and all capital expenditures (equipment, training rooms, etc.).

(5) Approval—

- (a) Prepare program and financial plan for current year and up to five years ahead,
- (b) develop program memoranda stating assumptions, priorities, criteria for choices, and uncertainties, and
- (c) obtain approvals.

Forecasting

Task Force studies show that many small agencies and a few large ones do not have adequate systems for identifying training needs; indeed, some have no systems at all. These agencies tend to deal with training on a spur-of-the-moment basis or accept what is available when the opportunity presents itself. Haphazard training can waste both time and money. Another common planning deficiency in present training needs surveys is their too-narrow focus on the present—current employees and current ways of doing the work.

In PPBS, specialists on the system team up with top-level program, personnel, and training officials to produce data on future training and education. They should predict, for up to five years ahead, changes in technology, organization, appropriations or functions that will affect the work done in the agency. They should also predict for up to five years ahead the levels of knowledge, skill, and ability of the employees who will staff the agency. These forecasts provide the basic assumptions from which sound training and education plans, programs, and budgets can grow.

Manpower Planning

In the space of this Report, it is possible to sketch only the barest outline of the process by which PPBS data can be translated into plans for training and education. Executives, managers, personnel officers, and employee development officers will need to cooperate in order to assess:

- (1) Turnover—
Rate of promotions at each level.
Rate of separations at each level.
Rate of recruitment from outside at each level.
- (2) Systems for advancement—
Standards for advancement.
System of competition for advancement.
- (3) Training needed for new recruits—
Estimate of number of recruits needed

annually (see in chapter four, Bureau of Labor Statistics forecast that in the next 10 years professional, technical, and administrative employees will increase by 225,000, and 675,000 replacements will be needed).

Estimate of numbers of applicants by type of education and experience (see in chapter four, Bureau of Labor Statistics projection that college graduates will increase 50 percent in 10-year period).

Forecast of amount, kind and duration of orientation and other initial training, on the job and off.

Assessment of adequacy of present training resources and need for additional resources.

- (4) Training needed to bring employees to full journeyman performance—

Estimate of number of employees to be trained annually by occupation and level of knowledge and skills.

Forecast of amount, kind and duration of training on the job, in the agency, off the job, and interagency.

Assessment of adequacy of present training resources and need for additional resources.

- (5) Training needed to bring employees to master levels of professional and specialist performance—

Estimate of number of journeymen who can be advanced within the agency.

Estimate of numbers of journeymen who must be recruited from outside the agency and their levels of education and experience.

Planning of major stages in advance to master level.

Forecast of amount, kind, and duration of training on the job, in in-service courses, interagency programs, and university or other education.

Running of cost-benefit studies of the different kinds of training.

Assessment of adequacy of present training resources and need for additional resources.

- (6) Training needed for leadership in supervisory, manager and executive posts—

Proceed much as in steps 3, 4, and 5.

Recommendations

The Task Force recommends:

That agency heads direct appropriate subordinates to project their needs for professional, administrative, and technical employees and use these manpower projections in planning training and educational programs.

As the work of the agencies can be expedited and duplication of effort avoided if the Civil Service Commission continues to give leadership and assistance in manpower planning, the Task Force further recommends:

That the Civil Service Commission continue to give advice, assistance, and information to agencies on their manpower planning;

That the Civil Service Commission in its inspections check on how agencies relate their manpower planning to training and education programs.

Cost-Benefit Analysis

This chapter has dealt so far with relating training to agency objectives and planning. Much that was presented in chapters five through eight deals with specific programs for professional, administrative, and technical employees. It is appropriate here, therefore, to pull together some of the data on the administrative processes involved in such programming. This is important because inquiries made by the Task Force turned up not one example of cost-benefit analysis of training for professional, administrative, and technical employees in non-defense agencies. The conclusion is that such analysis is at least not common.

Department of Defense PPBS has demonstrated many times that a careful analysis using all available facts will usually show great range in cost-benefit ratios among different alternatives. An analytic approach is superior to unguided intuition in picking the best alternative.

Having reviewed objectives, manpower planning, and training needs, the next step is to compare the effectiveness and the cost of alternative ways of providing training or education to attain those objectives. This assumes that PPBS has reached an agreed-upon set of overall agency objectives.

Variety of Program Choice

The executives or managers who undertake to assess the alternatives should approach it in a problem-solving spirit—a willingness to consider new ways of training, to search widely for different ways

that others have tried, to seek to invent a better way for themselves, to be willing to experiment. Under the Government Employees Training Act, management has a wide variety of choice. For example, in considering alternatives for training economists, managers can look into: work with a noted retired person, detail to another Federal agency, assignment to a research institute, placement in a course run by a local government, study at a research library, as well as the familiar choices of on-the-job instruction, agency classes, interagency training and university programs. The questions to be answered are: What is the cost of each and what are the benefits, determined as objectively as possible?

Those who study cost-benefits need data on:

- Past experience and recommendations
- Past costs and benefits
- Present alternatives:
 - What happens if nothing is done?
 - Which is likely to contribute most to the objectives?
 - What are expert opinions about quality of each?
 - What quantitative yardsticks can be developed to measure results?
 - What type of instructional staff produces optimal results?
 - What kind of employee benefits most?
 - At what stage in his career will he benefit most?
 - What is minimum period for some benefit?
 - What is length of time for optimal cost-benefits?
 - What is cost-benefit from each kind of training?
- Other programs competing with this for money and time
- Priorities to be assigned to competing programs

Evaluation and Programming

One of the most important inputs to programming is evaluation of past experience. Training and education under PPBS will soon feel pressures for more and better evaluation.

Only a few agencies reported to the Task Force that they were making serious efforts to determine the value of their present programs. Task Force members have concluded that the Civil Service Commission and the agencies need to move immediately into this important area.

Evaluations of training and education should show how they have contributed to the attainment of program objectives. Therefore, the time to plan evaluation begins when a program objective is agreed upon.

For example, a program objective—to build an interstate highway system—produces a subgoal, to train civil engineers in new methods for bridge construction. At the same time this goal undergoes analysis and translation into action, the targets for evaluation should be analyzed and established. Thus, by the time a training recommendation is drafted, say, for 2 weeks of lectures, 10 days of field trips, and 6 weeks of practical assignments, the procedures for evaluation of each part should also have been written.

Recommendations

The Task Force recommends:

That executives and managers take steps to improve the programming of training and education, the study of its cost-benefits, and the evaluation of its contribution to agency objectives and performance;

That the Civil Service Commission conduct research and development on the evaluation of training and education and advise agencies on evaluation methodology;

That the Civil Service Commission in its inspections improve its evaluations of agency training plans and programs.

Budgeting

Agencies now using PPBS find that training and education compete more successfully with other programs for funds and employee time than they formerly did. Although almost all agencies need to improve their budgeting practices for development, the need is most evident in smaller ones.

Budgets should include—

(1) Quantitative data such as the numbers of employees in each occupation to be trained, numbers of courses and the number of sessions in each, the number of hours in classes or away from the job, a comparison of in-service, interagency and outside training, comparison of offices using indices of training activity, comparison of training in small field activities with others, percent of each occupational group in training; and

(2) Fiscal data such as current cost of operations, maintenance costs, capital outlays, research and development expenditures, comparison of

costs of the different kinds of training by occupations and organizational divisions, and the allocations of charges to agency programs. If an agency charges for its services to others, these receipts should be shown. Training costs should include salaries of employees during time in training, tuition, books, equipment, cost of employee development officers and lecturers.

Agencies should request in their budgets not only money for training but also employee time which is usually calculated in man-years and sometimes called "spaces." Thus, an agency might ask for 100 spaces to produce a certain amount of work, plus an additional number of spaces to cover employees in training away from the job.

Allocating Charges

Some agencies have expressed a desire for Government-wide budgeting for certain types of training and education—for example, interagency training and residential training in non-Government institutions. The Task Force believes that costs for training should normally be charged to the program or function in which the individual serves. One simple rule of thumb would be to charge an employee's training costs to the same appropriation which pays his salary.

This does not take care of all training. It may be more convenient to obtain direct appropriations for certain training services. Some agencies hire young people who are placed in classes or rotated through a series of jobs for significant periods of time before they are assigned to a particular bureau or function. The Task Force suggests that even if such an activity is carried separately in appropriations, the salary and training costs for the employees involved should be allocated among the bureaus to whom they may be assigned in proportion to the size of each bureau's total budget for salaries and expenses. Training designed to broaden employees for managerial or executive posts could be similarly charged.

Agencies that charge for training services which they provide to others are, of course, acting consistently with the principles set forth above.

Cost of Staff Leadership

Some employee development officers have expressed reservations about the concept of charging training costs to program functions. They fear that while it will result in adequate funds for courses and contracts it will short change important

areas such as research and development, long-range planning, and PPBS.

It is agreed that funds must be allotted to employee development officers to permit them to plan, program, budget, control, locate new training resources, invent new methods, and provide data to management. While the Task Force desires that money and time spent on training be charged back to agency programs and missions which benefit, it is obvious that some costs are so general as to make this charge-back difficult. Such costs might be charged in the same manner as general costs of administration.

Recommendations

The Task Force recommends:

That agency heads direct appropriate officials to provide better quantitative and fiscal data on training and education such as the number of employees to be trained, the number of courses, time away from the job, capital outlays and research and development expenditures;

That managers and executives provide in their budgets both funds and man-years for training and education;

That agency heads charge the costs of training and education to the programs and functions which benefit from them; and

That the Civil Service Commission and the Bureau of the Budget assist agencies to develop sound program and financial plans for their training and education.

Career Systems

This chapter has so far covered PPBS rather extensively. This is deliberate and necessary if training and education are to be funded adequately and if time is to be allowed for training as it should be. However, there are other administrative processes which fuel sound developmental programs.

In its study of training for professional, administrative, and technical occupations, the Task Force was impressed by the fact that career systems simplify orderly planning, programming, and budgeting. Agencies that have them seem to have more aggressive and comprehensive programs. Some agencies, such as the State Department, the Department of the Army, and the Internal Revenue Service have such systems for practically all of their professional, administrative, and technical employees. Many others have systems for some occupations in these categories.

Elements of Career Systems

A career system has these elements:

- Recruitment in the expectation that the employee will spend most of his working life in the system
- Recruitment prior to substantial work experience
- A selection system that seeks out persons with long-range potential
- Assignments to develop both immediate and long-range usefulness
- A training and educational system which both develops potential and prepares an employee for work at a higher career level
- Systematic identification of stages in a lifetime career
- Standards for advancement to stages having more important responsibilities
- Procedures for competition for advancement

Agencies that have career systems usually make manpower projections regularly. It is much easier for them to do this manpower planning than it is for an agency which is not so organized. Career systems now have an additional advantage—they fit well into PPBS. The rewards obtained from career systems go far beyond this. Agencies with career systems attract more and better qualified applicants, create more readily a climate of growth and self development, are better able to hold on to their best employees, and get more work of higher quality.

Recommendation

The Task Force recommends:

That agency heads direct the establishment of and guide the operation of career systems for the advancement, training, and education of professional, administrative, and technical employees (repeated from chapter three).

Starting a Career System

It will take top-level guidance, time of career executives and managers, participation by representatives from the occupational groups affected, and skilled staff work to get a career system going where there is none now. Here is a list of the typical steps involved:

- Project training and education needs into the future, taking into account changes in mission, organization, and technology, and potential sources of recruits

- Analyze occupations or other natural groupings of employees to identify the patterns and stages in their careers
- Establish in consultation with skilled members of appropriate career groupings, guidelines or standards for effective performance at various stages of a career, and identify the knowledge and skills needed to attain effective and superior performance levels
- Provide training and education required for successful performance at various career stages
- Make known to employees typical career patterns
- Identify, produce, and make available materials which can be used in self development
- Provide career counseling with qualified counselors, on-the-job coaching by supervisors and managers, as well as classroom instruction
- Plan and make known to employees and their organizations the counseling, training, and education which is desirable at different stages of careers
- Train managers and supervisors in effective means for motivating self development and in techniques of on-the-job self development
- Develop standards and traditions which result in employees at one stage preparing themselves for the work of more advanced stages in their careers
- Develop systems which identify employees who can benefit from formal training and education, select through competition those likely to benefit most, then assign these employees to appropriate courses in the agency, in inter-agency programs, in universities, or other appropriate institutions
- Create systems which provide feedback to professional, administrative, and technical employees on performance, and coaching on how to overcome weaknesses and improve strengths
- Develop systems for assignments which move career employees to ever more demanding jobs which will deepen their knowledge, increase their skills, and broaden their understanding

Planning

Training and education can be more readily planned and more effectively carried out for occupations that have career systems. Employees, supervisors, and career counselors have guidelines for

planning individual careers. Executives, managers, and counselors can translate organizational needs into plans for occupational and individual training and education.

Monitoring

After a career system is installed, management should monitor it constantly to make sure that it is indeed being used and that it continues to support agency mission and objectives. Under PPBS, such reviews can be readily and regularly made.

Employees will find that a career system has a tremendous impact on their advancement. Because both management and employees have such a large stake in a career system, the Task Force suggests that management should consult employees and their representatives periodically about its provisions.

Goals for Individuals

The establishment of a career system should not cause its designers to lose sight of the individuals in it. In or outside such a system, growth is best achieved through goal-setting and feedback on performance to an individual, particularly if his fellow employees support the same or closely similar goals.

The Task Force suggests managers and supervisors use participative goal-setting, coupled with frequent performance appraisal and coaching designed to facilitate organizational goal achievement.

Recommendations

The agency's personnel system should support this managerial effort. The Task Force recommends:

That executives, managers, and personnel officers adjust their personnel systems and build traditions which support employee self-development;

That executives, managers, supervisors, and personnel officers publicize broadly to employees and employee organizations their training and education opportunities and counsel them on such programs.

Appraisal of Supervision

It follows quite logically that if supervisors should counsel their subordinates then managers should counsel supervisors and executives should counsel managers.

Recommendation

The Task Force recommends—

That agency performance appraisal systems provide specifically for review and feedback to supervisors and managers on their staff development activities (repeated from chapter three).

Staff Assistance to Managers

The administrative processes for training and education are complex. The work on them is specialized. The logical conclusion is that managers and executives having organizations of over 500 to 1,000 employees need staff assistance. Employee development officers provide this aid.

Employee Development Officers

Employee development officers have widely varying training and backgrounds. They are described in a study for the Task Force which shows:

Fifty-one percent are in grades GS-12 and above.

Fifty-nine percent entered Government at GS-6 or below (GS-5 is one common entrance level for college graduates).

Twenty-nine percent have served in GS-3 (a clerical grade).

Twelve percent are women (in other personnel occupations, 29 percent).

Forty percent are 50 years old or older, 27 percent under 40.

Sixty-six percent have at least a bachelor's degree; 28 percent, master's.

A majority majored in education in college.

One in four say they are developing themselves.

Ninety-three percent intend to remain in the Federal service; half would accept a job in another agency.

Half are members of a professional society.

Thirty-eight percent have published articles or books.

Future demands on employee development officers will be greater than ever. They should be outstanding people capable of dealing with more complex programs, changing technologies, the explosion of knowledge, and a host of other problems which will tax them to the utmost.

Government needs training officers who are intelligent, knowledgeable, and skilled individuals with imagination and resourcefulness, who have a willingness to adapt to a rapidly changing environ-

ment. These attributes coupled with experience, are essential if such officers are to be sufficiently influential with managers at all levels.

Increased Demand

Surveys conducted by the Bureau of Labor Statistics and the Civil Service Commission indicate that perhaps as many as 3,000 new employee development officers will have to be brought into the Federal service during the next 10 years. More than half of these will be replacements of personnel who will retire or leave the Government for other reasons. The remainder will fill new positions needed to meet the increasing demands placed on the employee development function.

The flow of new employee development officers has already begun and is picking up momentum slowly. In about five years this flow will probably enlarge, as substantial numbers of them become eligible for retirement at approximately the same time. Simultaneously, other occupations will be competing for the same kind of talent.

Increased Development Needs

All of this means that special efforts will be necessary to maintain and improve the quality of employee development officers. Efforts to recruit high-quality candidates capable of meeting the demands of the future will have to be stepped up. Additionally, a more intensive effort to develop the newcomers will be necessary, as they will be required to assume heavy responsibility more rapidly than did their predecessors.

Recommendations

The Task Force recommends:

That agency heads review performance requirements for employee development officers and prepare a five-year manpower plan which will supply such officers with the education, training, and experience needed in the light of the agency's changing programs and objectives;

That the Civil Service Commission assist agencies to establish recruiting requirements and attract persons to employee development officer positions;

That the Civil Service Commission after review of agency and interagency training programs take steps to see that adequate training and education

is provided for the employee development officer of the future.

Recognition

The Civil Service Commission should establish a program designed to provide recognition to employee development officers who have demonstrated their competence, and at the same time provide a valuable service to itself and other agencies. Each year, a panel of experts should select a small number of distinguished employee development officers to serve as special training consultants for the Federal service. These individuals could be made available when needed to advise the Civil Service Commission or any Federal agency on training and education matters in the Federal service.

Information Systems

As the Task Force collected information on training and education, it became quite evident that comprehensive data was hard to come by. Most agency information systems on training and education are inadequate. Agency heads can carry out their responsibilities under the Government Employees Training Act only if they have readily accessible and current data that permit sharp analysis and sound decisions.

The data now collected for the President and for the Congress are also inadequate. The Civil Service Commission has the authority to obtain such data and to counsel agencies on the improvement of their own information systems.

The kinds of data required have been discussed earlier in this chapter. Action should be taken to put the information system on a sound footing.

Recommendations

The Task Force recommends:

That the Civil Service Commission with agency cooperation design a new reporting system for training and education in the Federal service; and

That agency heads make substantial improvements in their information systems for training and education in order to provide readily accessible and current data to management at all levels of the organization.

Small Field Activities

The Task Force's concern with the lack of training for employees located in small units, especially

those with 200 employees or less outside of Washington, was made clear in chapters five, six, and seven.

Recommendation

The Task Force recommends:

That the Civil Service Commission in its inspections pay special attention to the training and educational opportunities available to professional, administrative, and technical employees in small field units.

A Special Problem

The Task Force's attention was drawn to a proposal for the revision of Internal Revenue Service regulations which would adversely affect Government employees, especially those going to long-term

training. The new regulations would tax the value of training in non-Federal institutions if it prepared or enabled an employee to perform a different job. This is often the goal of long-term training—to prepare a specialist for a managerial position, to train a mechanical engineer to fill a naval architect job long vacant, to qualify a nuclear physicist to become a reactor safety specialist. This type of employee-sponsored training is not just good employee relations, it is a grim necessity.

Recommendation

The Task Force recommends:

That the Secretary of the Treasury act to protect the investment of Government and employees in training by excluding from income of Federal trainees payments made by the Government to non-Federal facilities for their instruction.

Chapter Ten

Authority and Responsibilities

The Task Force approached the division of authority and responsibilities for operations under the Government Employees Training Act in two quite different ways. First, its staff asked agency officials for suggestions for changing the present system. Second, it considered what changes would be needed to put its recommendations into effect.

Agency and Commission officials report that the Government Employees Training Act, passed in 1958, permits the President and agency heads to establish needed training and education programs. The Task Force found that all of its recommendations can be implemented under the present legislation. The powers and authorities of the Act are broadly conceived and broadly stated. The Task Force concludes that no new legislation is needed but executive action is needed to make more effective use of its provisions.

Finding

The Task Force has no recommendation to make on new legislation for training and education for professional, administrative, and technical employees.

Congressional Employees

The Congress is now considering extending the Government Employees Training Act to its own employees. In view of the success of the Executive Branch with this legislation, this is a good move.

Responsibilities Under the Act

A summary of the division of responsibilities for training and education is given in an appendix to this chapter. Major responsibility for supervision and control is placed by the Act on the President. Responsibility for training operations is placed on

the heads of agencies. The Civil Service Commission, as a result of delegations of authority both from the President and the Act, has wide latitude. It can and has issued regulations. It can except groups of employees from the Act or bring them back. It can grant waivers from certain restrictions in the Act. It inspects training activities and makes recommendations for improvement, annually collects data on training, and provides interagency training services in both Washington and the field.

The pattern is one quite consistent with current thinking about the management of large business and governmental organizations. The Commission sets overall guidelines but leaves the details of course management and on-the-job instruction to agency officials.

Agency Delegations

A study for the Task Force reviewed the pattern of agency delegations. Agency heads in general acted cautiously in the early days of the Training Act. Some have not updated their deputations to reflect and put to advantage the greater experience of their staffs. The Task Force suggests that present delegations on professional, administrative, and technical training be reviewed and revised with objectives such as these:

- That agency heads place responsibility on managers and supervisors for continuing on-the-job instruction of their subordinates;
- That they place responsibility for selection and assignment to in-service training on managers above the first line of supervision, but as close to it as possible;
- That they place responsibility for short-term training or evening courses in non-Federal facilities in the hands of managers (a) who cannot only insure that the training meets agency

priorities and furthers agency objectives, but, (b) who are also high enough in the hierarchy to distribute available training resources with reasonable equity among employees in the same occupations in the same geographic area;

- That they place responsibility for residential and full-time training which takes an employee away from his job for three or more weeks in the hands of managers equivalent to regional directors or bureau directors, who can carry out agency policies and at the same time have the authority to commit funds to such training. (Managers at lower levels often seem more reluctant to spare men from jobs; hence the recommendation that a man removed from the day-to-day supervision of units and sections support this kind of training).

The pattern is to delegate as low in the organization as possible, yet get needed training for professional, administrative, and technical employees carried out. Task Force studies seem to show that the more expensive the training and the longer it takes, the more it needs a push from higher management levels.

Delegation of Executive Training

It is always a problem to free executives for training off the job. The Task Force repeats a recommendation made earlier: agency heads should designate a high-ranking official to activate an executive development program and provide resources to implement it. Career executives are remarkably busy and often made to feel that they should not take vacations or be off the job for more than a few days at a time. Yet they too need occasional breaks—to rethink their jobs, to explore with peers means for becoming more effective, to broaden their horizons to become better attuned toward policies and programs of the President and agency heads. The agency head or his alter ego will have to support such time for training at the proposed Government-conducted, residential program for executives or at other full-time programs.

Agency Policies

The pattern of delegations should require carrying out major administration policies for equal treatment of persons regardless of race, creed, color, nationality, or sex. Assignments for training, at-

tendance at in-service training courses, and support in educational courses are all shared investments of great value to employees. The needs of the organization should be paramount in determining priorities for training or education and what kinds are to be sponsored, but the determination as to who should go should be by fair competition on the basis of merit.

The authorities granted should take into account the need for retraining persons affected adversely by reductions-in-force and relocation of work.

Recommendation

The Task Force recommends:

That agency heads review now their delegations for training and education of professional, administrative, and technical employees and revise them to provide:

- (1) *Stimulus to active, continuing training and education;*
- (2) *Authority for management to take and get prompt action in accordance with Government and agency policies and procedures; and*
- (3) *Evaluations and controls which flag needed changes or remedial actions.*

Bureau of the Budget's Responsibilities

The Bureau of the Budget through its bulletins and advice to agencies plays an important part in shaping agency programs and budgets which in turn affect training and education. It is also influential in guiding Presidential decisions on such matters.

The Task Force is of the opinion that budget examiners and others at the Bureau can do much to focus agency attention on improved training and education, especially through PPBS. This should result in better long-range planning of employee development.

Recommendation

The Task Force recommends:

That the Director, Bureau of the Budget, in budget reviews and analyses of management and organization, check on the adequacy of agency funds and man-years for training and education leading to improved public service, efficiency, and economy.

Civil Service Commission Responsibilities

The Task Force finds that the Civil Service Commission has effectively used the authority in the Government Employees Training Act to conduct interagency training. The courses which it has offered in Washington, in regional centers, and in its two Executive Seminar Centers have been fine, indeed. The Commission has carried on these activities through sharing the costs of the training with the agencies.

The Task Force finds that while the Commission's interagency training program has grown apace, its other services have remained inadequate. The time has come to redress the balance.

Recommendation

The Task Force recommends:

That the President direct the Civil Service Commission to plan and promote the development, improvement, coordination, and evaluation of Federal civilian employee training programs.

The most important changes for the future are (1) somewhat different patterns of delegation of training authority in a number of agencies, and (2) a correction of imbalance in the Commission's operations which will enable it to become in fact the President's staff advisor on the administration of training and education for Federal employees.

Appendix to Chapter Ten

The Pattern of Responsibilities

Responsibilities of the President under the Government Employees Training Act:

- Supervise and control training and education in all departments and agencies
- Supervise and control the Civil Service Commission
- Designate exceptions from the act
- Designate Presidential appointees to be trained
- Act on noncompliance with law or regulations
- Approve reports to the Congress

Responsibilities of the Bureau of the Budget related to training:

- Improve management and organization
- Monitor planning, programming and budgeting
- Inform the President on program progress
- Apportion appropriations
- Issue regulations on absorption of training costs
- Regulate travel
- Issue regulations on reduction of payments received from training awards from non-Government organizations

Responsibilities of the Civil Service Commission related to training:

- Promote, coordinate and facilitate training
- Issue regulations on training and education
- Advise and assist departments and agencies
- Make training information available
- Inspect training activities
- Evaluate personnel management in Federal agencies

- Conduct studies on personnel management and take action to improve it or recommend action to the President
- Direct Government-wide recruiting and examining programs
- Except departments or employees from provisions of the Act
- Waive controls on non-Government training
- Regulate acceptance of training awards from non-Government organizations
- Maintain a specialized personnel management library
- Standardize basic personnel records
- Report on Federal training and education to the President and the Congress

Responsibilities of a department related to training:

- Determine training needs
- Encourage self-development
- Establish and operate needed training programs
- Determine kinds of training to be provided (Note: this is so specific that the Commission cannot regulate types, methods, or details of intra-departmental training)
- Assign employees to training
- Determine how training will be financed
- Establish appropriate administrative controls
- Report to the Commission on training and education

Next Steps

A Task Force collects data, consults experts, examines its members' experiences, and produces recommendations which hopefully will bring about significant change for the better. Recommendations are hard enough to come by, but implementation is even more difficult, for this can be done only if executives, managers, supervisors, and employees are moved to transform paper plans into operational realities. This chapter is concerned with the steps to implement the recommendations of the Task Force.

Executive Order

The findings and the recommendations in this Report make clear that much can be done to improve Federal training for professional, administrative, and technical employees. The first step is to establish a clear, basic policy on the direction that this improvement should take. The Task Force is of the opinion that the President should revoke Executive Order 10800, which in 1959 implemented the Government Employees Training Act, and issue a new one.

Recommendation

The Task Force recommends:

That the President issue an Executive Order which establishes basic policy for improvement of the public service through maximum exploitation of better training and education, taking into account productive new practices in industry and Government.

Presidential Directive

A policy statement covering large agencies and small, concentrated and dispersed, military and civilian, must necessarily be stated in broad principles. When an Executive Order is issued, each agency

head with top subordinates will need to translate it into programs fitting the organization's structure, its employees, and their occupations. Plans will need to be worked out to initiate changes in present programs or establish new ones. Instructions addressed to these initial problems would not belong in an Executive Order.

The Task Force suggests that the President set guidelines for the initial actions needed to put the new Executive Order into effect. This might be done through memoranda addressed to the agency heads.

Task Force Report

As the Presidential directives will be concerned with broad, overall policy, agency heads should be asked to establish concrete programs to improve training and education of professional, administrative, and technical employees. In this task, they should get help from the Civil Service Commission. The Task Force suggests that the Commission assist agency officials to determine priorities and issue bulletins or other publications which would develop further the proposals of this Report.

Recommendations

The Task Force recommends:

That the President ask agencies to review the Task Force Report and periodically provide the Civil Service Commission statements on their progress in implementing it;

That the President ask the Civil Service Commission to provide agencies advice on implementing this Report both in writing and through consultations.

Funds for Commission

In chapter ten, the Task Force recommended that the Commission be directed to increase its advisory

and technical services to agencies and provide more staff services on training and education to the President. This can be done only if funds are provided for staff and operational costs.

Recommendation

The Task Force recommends:

That the Civil Service Commission seek and that the President and the Congress provide:

(1) *Resources for staff assistance to the President on training and education; and*

(2) *Resources for Government-wide coordination, information-analysis, advice, assistance, and leadership in the field of career systems, training, and education.*

With these resources, the Commission should be able to help agencies, as proposed in chapter ten, in setting up sound systems for planning, programming, and budgeting of training, and for evaluating their contributions to efficient and effective agency management.

Other Groups

As the Task Force examined post-entry training and education for professional, administrative, and technical occupations—27 percent of the total Federal employment—it was obvious that the recom-

mendations in many instances would not be fully applicable to other occupational groups.

Recommendation

The Task Force recommends:

That the President direct the Civil Service Commission to coordinate and initiate with agency cooperation studies of training and education needed for major occupational groups not covered in this Report.

Conclusion

Project Hindsight, a study of 17 American weapons systems, concludes that it takes roughly a decade to carry out the research that leads to signal innovation. For some Federal agencies, the Government Employees Training Act was a signal innovation. Most agencies have experimented with it and many have used it moderately well. It is the hope of this Task Force that before the 10th anniversary of the Government Employees Training Act, all agencies will be traveling the broad, enabling expressways it opens up to smooth, rapid professional, administrative, and technical training and education; and will be making good time toward the well-marked destination: improved public service.

Acknowledgements

The Task Force received help from many sources, inside Government and out, and is grateful to everyone who provided information, especially those who prepared major studies for the deliberations that led to this Report. Papers are listed according to the subject matter of chapters.

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The Federal Executive Institute. Sponsor: J. Kenneth Mulligan, Director. Project Director: William T. McDonald, Deputy Director.

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All of the papers and studies are available in the Library, United States Civil Service Commission, Washington, D.C.

